TOSHIBA

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SERVICE MANUAL

Projection Television

56HM195
62HM195
72HM195

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CIRCUIT DIAGRAM

SAFETY INSTRUCTIONS

SAFETY PRECAUTION

WARNING: Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. When replacing a chassis in the cabinet, always be certain that all the prospective devices are put back in place, such as; non-metallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety character istics as specified in the parts list may create shock, fire, or other hazards.

SERVICE MODE

1. ENTERING SERVICE MODE

1) Press MUTE button twice on Remote Control.

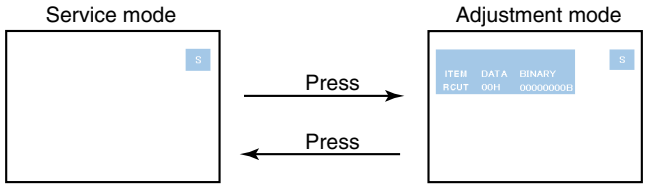
2) Press MUTE button again and keep pressing.

3) While pressing the MUTE button, press MENU button on TV set.

(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on Remote Control.



3. SELECTING THE ADJUSTING ITEMS

1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2. (▼ button for reverse order)

Refer to table-1 for preset data of adjustment mode.
(See SETTING & ADJUSTING DATA on page 9)

4. ADJUSTING THE DATA

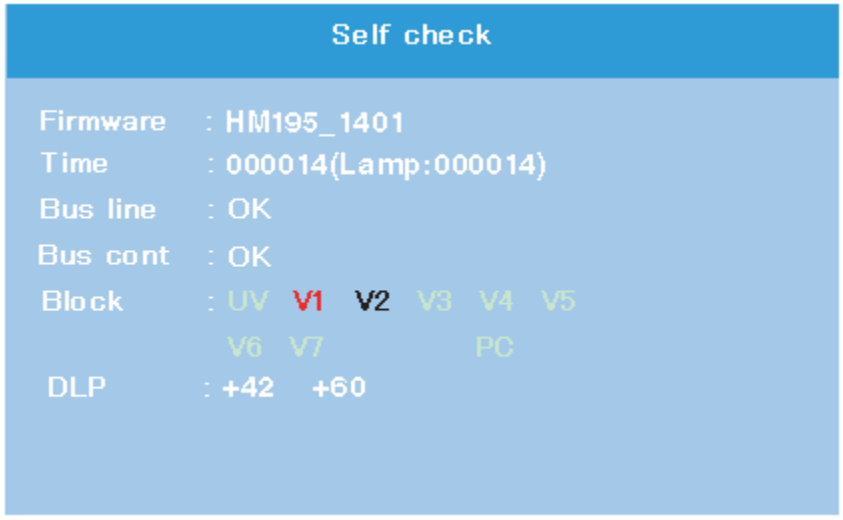
1) Pressing of VOLUME ▲ or ▼ button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

5. EXIT FROM SERVICE MODE

1) Pressing POWER button to turn off the TV once.

6. SELF DIAGNOSTIC FUNCTION

1) Press “9” button on Remote Control during display of adjustment menu in the service mode.
   The diagnosis will begin to check if interface among IC’s is executed properly.
2) During diagnosis, the following displays are shown.


Self check
① Firmware : HM195_1401
② Time : 000014(Lamp:000014)
③ Bus line : OK
④ Bus cont : OK
⑤ Block : UV V1 V2 V3 V4 V5
V6 V7 PC
⑥ DLP : +42 +60

① Firmware :
Version information of microprocessor
In case of file name : HM195 and Version : 1401 indicates[HM195_1401].

② Time : Total brightness hour of the projection lamp. (Unit : H)

③ Bus line : --"OK" is normal
"SCL-GND"(Red indication) : SCL-GND short circuit
"SDA-GND"(Red indication) : SDA-GND short circuit
"SCL-SDA"(Red indication) : SCL-SDA short circuit

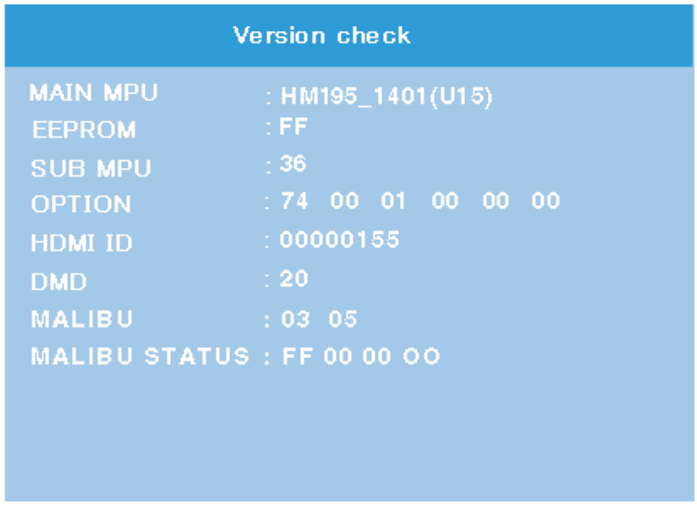
④ Bus cont : --- "OK" is normal.
NG is abnormal(Red indication), when type name of semiconductor indicates.

⑤ Block
UV : TV reception mode
V1 : VIDEO 1 input mode
V2 : VIDEO 2 input mode
V3 : VIDEO 3 input mode
V4 : ColorStream HD-1 IN
V5 : ColorStream HD-2 IN
V6 : HDMI IN 1
V7 : HDMI IN 2

⑥ DLP : Thermal sensor values information that indicates both of nearby the projection lamp and DMD microprocessor into the unit.

7. VERSION CHECK MODE

1) Press “9” button twice on Remote Control during display of adjustment menu in the service mode. The version of main MPU will begin to check.
2) During Version Check, the following displays are shown.


Version check
① MAIN MPU : HM195_1401(U15)
② EEPROM : FF
③ SUB MPU : 36
④ OPTION : 74 00 01 00 00 00
⑤ HDMI ID : 00000155
⑥ DMD : 20
⑦ MALIBU : 03 05
⑧ MALIBU STATUS : FF 00 00 OO

① MAIN MPU :
Version information of microprocessor
In case of file name : HM195, Version 1401 for Code Program Version and (U15) for OSD Version indicates [HM195_1401(U15)]

② EEPROM :
Version information of EEPROM : Display 1 byte data.

③ SUB MPU :
Version information of SUB MPU : Display 1 byte data.

④ OPTION :
Option information : Display six numbers of 1 byte data.

⑤ HDMI ID :
HDMI ID information : Display 4 byte data.

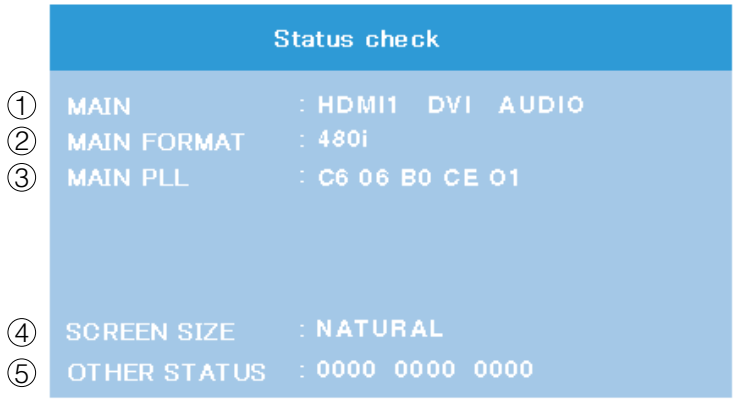
⑥ DMD :
Version information of DMD optical engine : Display 1 byte data.

⑦ MALIBU :
MALIBU information : Display two numbers of 1 byte data.

⑧ MALIBU STATUS :
MALIBU STATUS information : Display four numbers of 1 byte data.

8. STATUS CHECK MODE

1) Press “9” button thrice on Remote Control during display of adjustment menu in the service mode. The status of this model will begin to check.
2) During Status Check, the following displays are shown.


Status check
① MAIN : HDMI1 DVI AUDIO
② MAIN FORMAT : 480i
③ MAIN PLL : C6 06 B0 CE 01
④ SCREEN SIZE : NATURAL
⑤ OTHER STATUS : 0000 0000 0000

① MAIN :
Main source information :
Display RF position number (1 - 135) on the main screen, or Input Source (HDMI1/2, DVI, AUDIO etc.)

② MAIN FORMAT :
Display Video and PC format information

③ MAIN PLL :
Main PLL information : Display 1 byte data at five.

④ SCREEN SIZE :
Display the screen size as follows.

Theater Wide 1
Theater Wide 2
Theater Wide 3
FULL
NATURAL

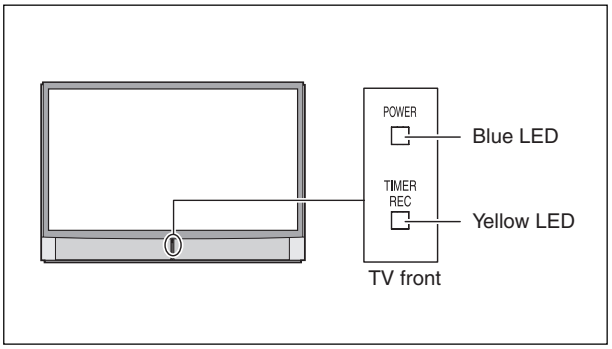
⑤ OTHER STATUS :
Other status information : Display three numbers of 2 byte data.

9. LED indications

The yellow and blue LED lights on the TV (at the bottom center of the TV) indicate the TV's status, as described below:

- Blue ON (solid) and Yellow OFF = The TV power cord is plugged in.
- Yellow ON (solid) and Blue OFF = A recording is in progress while the TV is OFF.
- Blue ON (solid) and Yellow ON (solid) = A recording is in progress while the TV is ON.
  Yellow and/or Blue blinking (see table below).

Note: If the TV loses A/C power (e.g., a power outage occurs or the power cord is unplugged), when power is restored, the yellow LED will blink while the TV is booting until the remote control is usable. This is normal and is not a sign of malfunction.



	LED	Condition	Solution
1	Yellow blinks continuously at 3-second intervals. Blue blinks continuously at 0.5-second intervals.	The lamp unit door is not seated properly.	Turn OFF the TV and unplug the power cord. Review "How to replace the lamp unit" on pages 10–12 to ensure that the lamp door is installed securely.
2	Yellow blinks continuously at 0.5-second intervals; Blue is ON (solid).	The lamp is not working properly.	The TV will automatically try to restart itself eight times (see item #3).
3	Yellow and Blue blink continuously at 1-second intervals.	The lamp is not working properly after the eighth automatic restart (see item #2).	Turn the TV OFF and then ON again. If the problem persists, replace the lamp unit (see pages 10–12).
4	Yellow is OFF; Blue blinks at 0.2-second intervals 4 times (repeat).	An abnormal temperature increase has occurred.	Turn OFF the TV. Check to make sure all slots and openings in the TV cabinet are not covered, blocked, or dusty. Turn ON the TV again. If the problem persists, contact a Toshiba Authorized Service Center.
5	Yellow is OFF; Blue blinks continuously at 0.5-second intervals.	Abnormal operation (including cooling fan stop).	Turn OFF the TV and unplug the power cord. Plug the power cord in again and turn ON the TV.
6	Yellow is OFF; Blue blinks continuously at 1-second intervals.	Abnormal operation of BUS line.	Turn OFF the TV and unplug the power cord. Plug the power cord in again and turn ON the TV.
7	Yellow is OFF; Blue blinks at 0.2-second intervals 3 times (repeat).	The color wheel has stopped.	Turn OFF the TV and unplug the power cord. Plug the power cord in again and turn ON the TV.

SETTING & ADJUSTING DATA

【SERVICE MODE】

ADJUSTING ITEMS AND DATA IN THE SERVICE MODE:

Item	Name of adjustment	Preset	Data
RCUT	R CUT OFF	00H	←
GCUT	G CUTOFF	00H	←
BCUT	B CUT OFF	00H	←
GDRV	G DRIVE	80H	←
BDRV	B DRIVE	80H	←
RDRV	R DRIVE	80H	←
＊BRTC	BRIGHTNESS CENTER	FDH	←
＊COLC	COLOR CENTER	C8H	←
＊UVTT	BASE BAND TINT	FEH	←
＊CNTX	CONTRAST MAX	80H	←
CNTCG	G CONTRAST CENTER	64H	←
CNTCR	R CONTRAST CENTER	64H	←
CNTCB	B CONTRAST CENTER	64H	←
HPOS	H-POSITION	00H	←

Item	Name of adjustment	Preset	Data
VPOS	V-POSITION	00H	←
CWDH	COLOR WHEEL DELAY (HIGH)	00H	←
CWDL	COLOR WHEEL DELAY (LOW)	74H	←
DMDB	DMD BIAS	03H	←
OPT1	TV SET OPTION 1	74H	←
OPT2	TV SET OPTION 2	00H	←
OPT3	TV SET OPTION 3	01H	←
PLLW0	PLL WAIT TIME	14H	←
PLLW1	PLL WAIT TIME	03H	←
PLLW2	PLL WAIT TIME	0FH	←
PLLW3	PLL WAIT TIME	05H	←
PLLW4	PLL WAIT TIME	14H	←
PLLW5	PLL WAIT TIME	04H	←

Table-1

Note:

The image system data of ＊ mark items are different by each image format.
The RF-Signal value is indicated in the table.
Retention the HPOS and VPOS data to EEPROM of Malibu.
Retention the CWDH and CWDL data to EEPROM of DMD.

LAMP UNIT REPLACEMENT

Cautions when replacing LAMP UNIT (E998Z; PJ-D95-LMP)

The light source for this TV is a mercury lamp with internal atmospheric pressure that increases during use. The lamp has a limited service life that varies depending on user settings. If you use the lamp beyond its service life:

- you may notice a reduction in the colors and/or brightness of the picture; and
- the strength of the quartz glass in the lamp will be reduced and the lamp may rupture (often making a loud noise when this happens). If the lamp reputres, the TV will not operate until the lamp unit is replaced.

Note: The lamp unit is designed so broken lamp glass remains securely inside the lamp unit.

CAUTION: Always handle the lamp unit with care.
The lamp unit in this TV was designed for safe replacement by consumers; however, if the lamp unit is subjected to intentional abuse (such as excessive mechanical abuse or handling by children or pets), the unit may break, exposing edges or pinch points.

When to replace the lamp unit

You should replace the lamp unit:

- if the picture darkens and/or colors fade;
- if the lamp does not light; or
- If you hear a loud noise and the picture goes black, which may indicate a lamp rupture (LED indication #8). See LED indications on page 6.

Note: Be sure wear the gloves before replacing the lamp unit.

1. Turn off the TV and unplug the power cord.

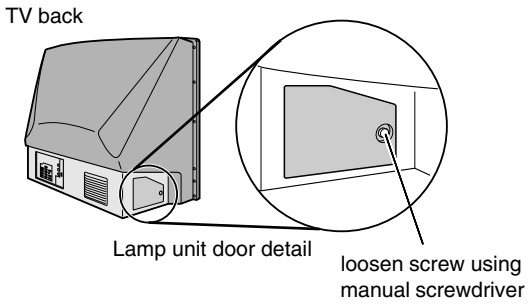
WARNING: Eye damage may result from directly viewing the light produced by this lamp. Always turn off the TV and unplug the power cord before opening the lamp unit door.

2. STOP! Allow the lamp to cool for at least one (1) hour before replacing it.

CAUTION: HOT SURFACE

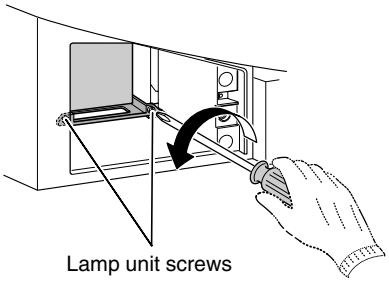
The temperature of the lamp immediately after use exceeds 392 F (200 C). Touching the lamp at this temperature will result in injury. **ALLOW THE LAMP TO COOL FOR AT LEAST ONE (1) HOUR BEFORE REPLACING IT.**

3. On the lamp unit door on the side of the TV, loosen the screw using a manual screw driver, and then remove the lamp unit door.

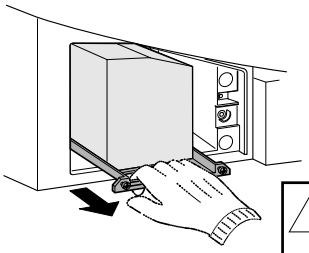


WARNING: The lamp unit door is provided with an interlock to reduce the risk of electric shock and excessive ultraviolet radiation. **Never defeat its purpose or attempt to service without removing the lamp unit door completely.** Failure to follow this WARNING may result in death or serious injury.

4. Using a manual screwdriver, loosen the two screws on the lamp unit.

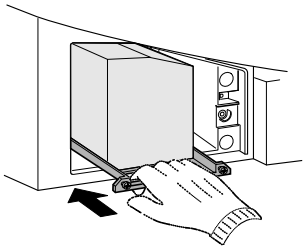


5. Grasp the lamp unit handle and gently pull the lamp unit straight out of the TV. Set the old lamp unit aside.



Note: Wear solt, lint-free gloveswhen replacing the lamp unit.

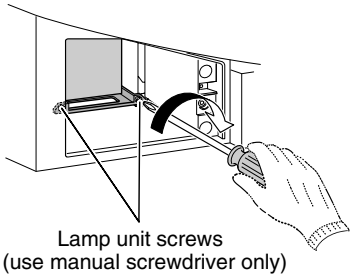
6. Carefully insert the new lamp unit straight into the TV until it is fully seated.



Note :

- Never subject the lamp unit to excessive shock.
- Never touch the lamp unit glass or otherwise get it dirty.
- Doing so may affect the image quality and reduce the service life of the lamp. See “Cleaning the lamp unit glass” below.

7. Using a manual screwdriver, tighten two lamp unit screws.
Note:Hand-tighten only. Do not use an electric screwdriver.

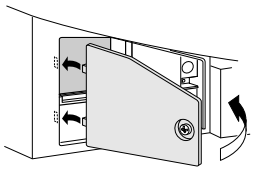


Cleaning the lamp unit glass

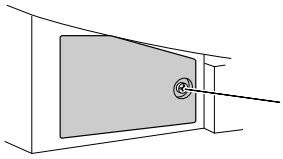
If you accidentally touch the lamp unit glass or otherwise get it dirty, wipe it with a lint-free lens cleaning cloth (such as a cloth for cleaning camera lenses or eyeglasses).

CAUTION: NEVER clean a hot lamp with any type of flammable liquid or aerosol cleaning agent. Many ordinary cleaning agents (such as glass cleaners) contain chemicals that may be flammable at certain temperatures. If the lamp unit is not allowed to cool for at least one (1) hour, such chemicals may ignite.

8. Reattach the lamp unit door, making sure to insert the hooks on the left side of the lamp unit door inside the opening in the TV cabinet.



9. Replace the screw and hand-tighten using a manual screwdriver.



NOTE : Make sure the lamp unit door is installed securely; otherwise, the TV may not turn on.

10. Plug in the power cord and turn on the TV. After the initial warmup period (which may take several seconds for full picture brightness), the TV should operate normally. If any of the following conditions exist, turn off the TV, unplug the power cord, and repeat steps 1-9 to ensure that the lamp unit and lamp unit door are installed correctly:
    - No picture
    - Dark picture
    - TV will not turn on

LIGHT ENGINE REPLACEMENT

Cautions when replacing LIGHT ENGINE

LIGHT ENGINE UNIT:

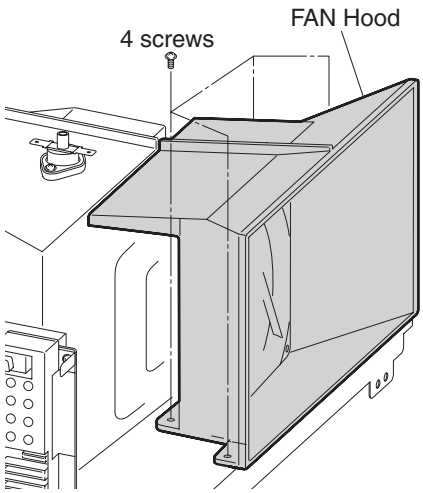
A271 : LV-682 TB
(Including with E998Z, SK01 to SK04, SK06,SK08 and SK09.)

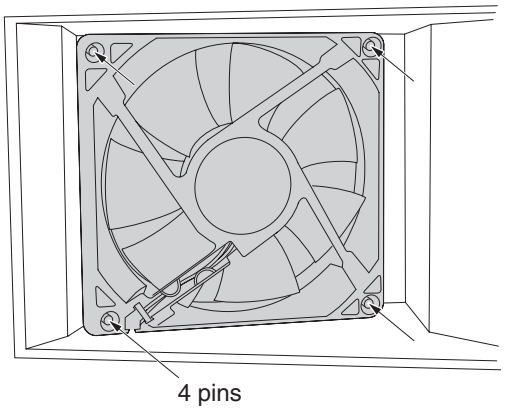
- LIGHT ENGINE is a heart of the TV and emits high heat. Make sure to replace it after turning off the TV and wait for sufficient cool down. (More than one hour is recommended.)
- Do not impact during replacement; otherwise, some parts may be damaged.
- Do not touch optical lens. Adhesion of dirt may deteriorate its performance.
- Do not loosen any screw other than those to be removed for adjustment or replacement.
- LIGHT ENGINE emits ultraviolet rays when the TV is ON. Make sure to be careful.

PARTS REPLACEMENT IN LIGHT ENGINE

1. Replacement of Lamp FAN (SK01)

1-1. Replace the FAN for cooling Lamp (SK01), remove the 4 screws on the FAN Hood, and remove the 4 pins by pressing toward allows using a screwdriver, and the remove the FAN for cooling Lamp.
NOTE:
Reinstalling the FAN for cooling Lamp, attach the 4 pins by using removed them after replace the FAN.

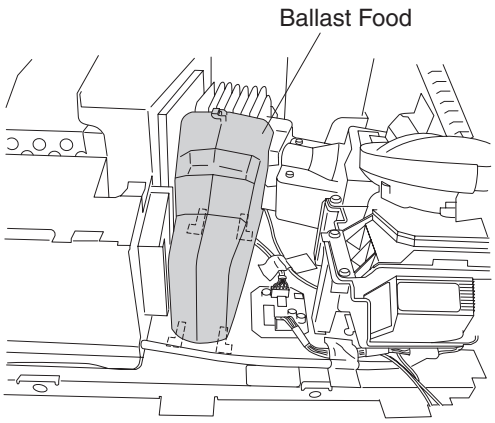


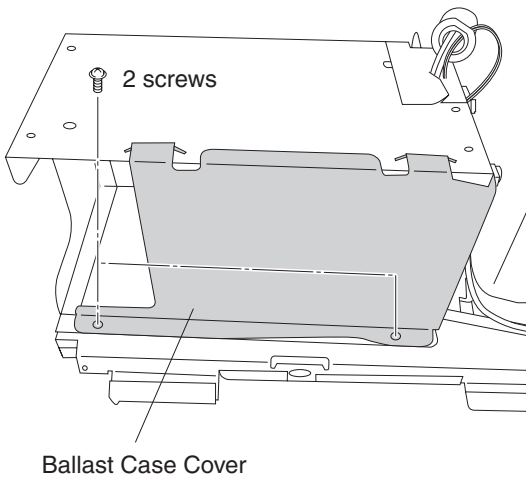


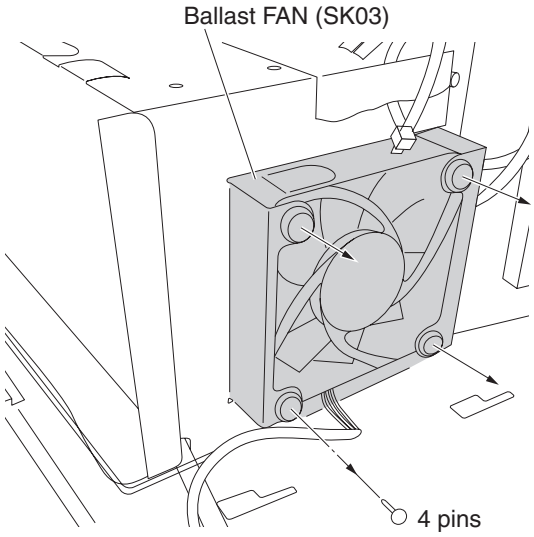
2. Replacement of Ballast FAN (SK03)

2-1. Replace the FAN for cooling Ballast Power Unit (SK03), remove the Ballast Hood, and remove the 2 screws on the Ballast Case Cover.

2-2. Remove the 4 pins by pressing toward inside of the FAN using a screwdriver, and then remove the 4 pins toward allows as figure.
Remove the FAN for cooling Ballast Power Unit.
NOTE:
Reinstalling the FAN for cooling Ballast Power Unit, attach the 4 pins by using removed them after replacing the FAN.

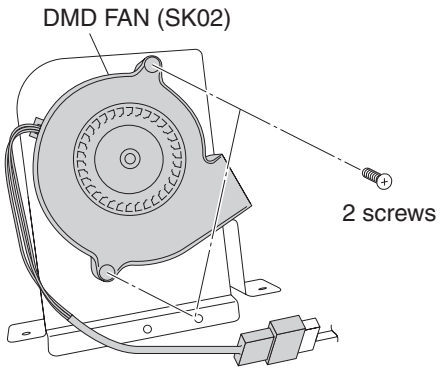


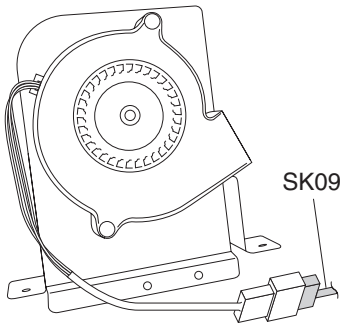




3-2. Remove the 2 screws from the bracket, and then remove the FAN for cooling Formatter Board (SK02).

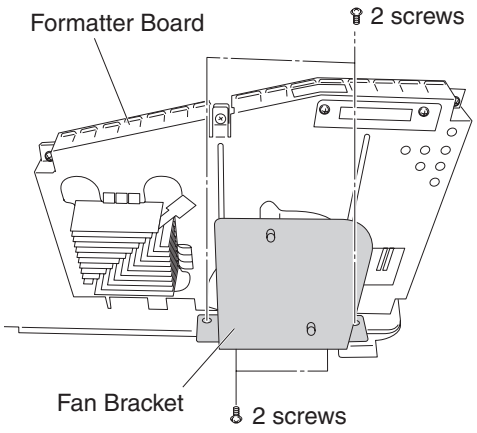
3-3. Disconnect and replace the FAN transfer cable between Ballast and Formatter Boards (SK09).





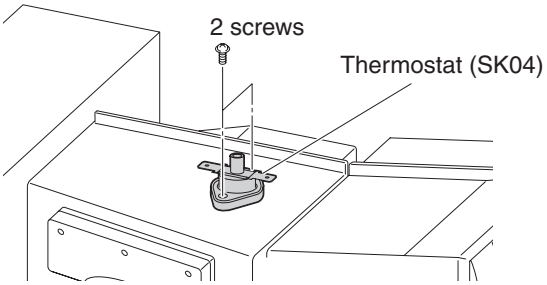
3. Replacement of DMD FAN (SK02) and FAN Transfer Cable (SK09)

3-1. Replace the FAN for cooling Formatter Board, detach the Fan Bracket with DMD FAN by removing the 4 screws on the bracket.



4. Replacement of Thermostat (Lamp Sensor) (SK04)

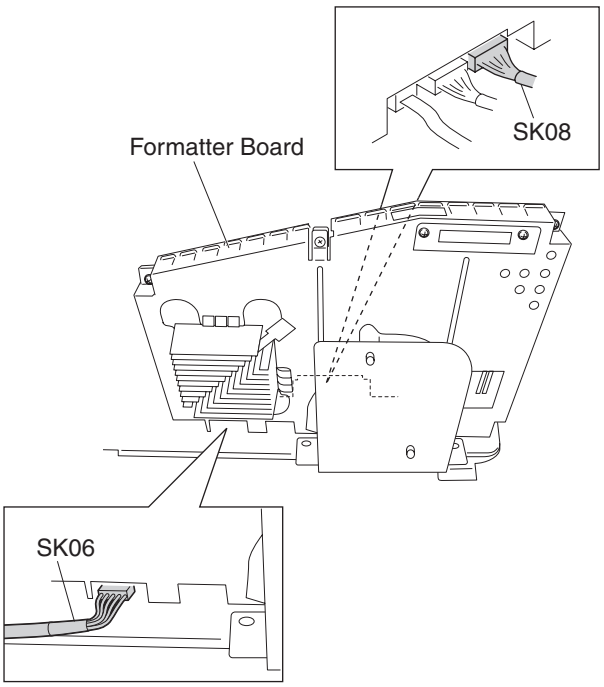
4-1. Replace the Thermostat (Lamp Sensor) (SK04), remove 2 screws on the Thermostat.



5. Replacement of Ballast to Formatter Board Cables (SK06 and SK08)

5-1. Disconnect and replace the cable between Ballast and Formatter Boards (SK06).

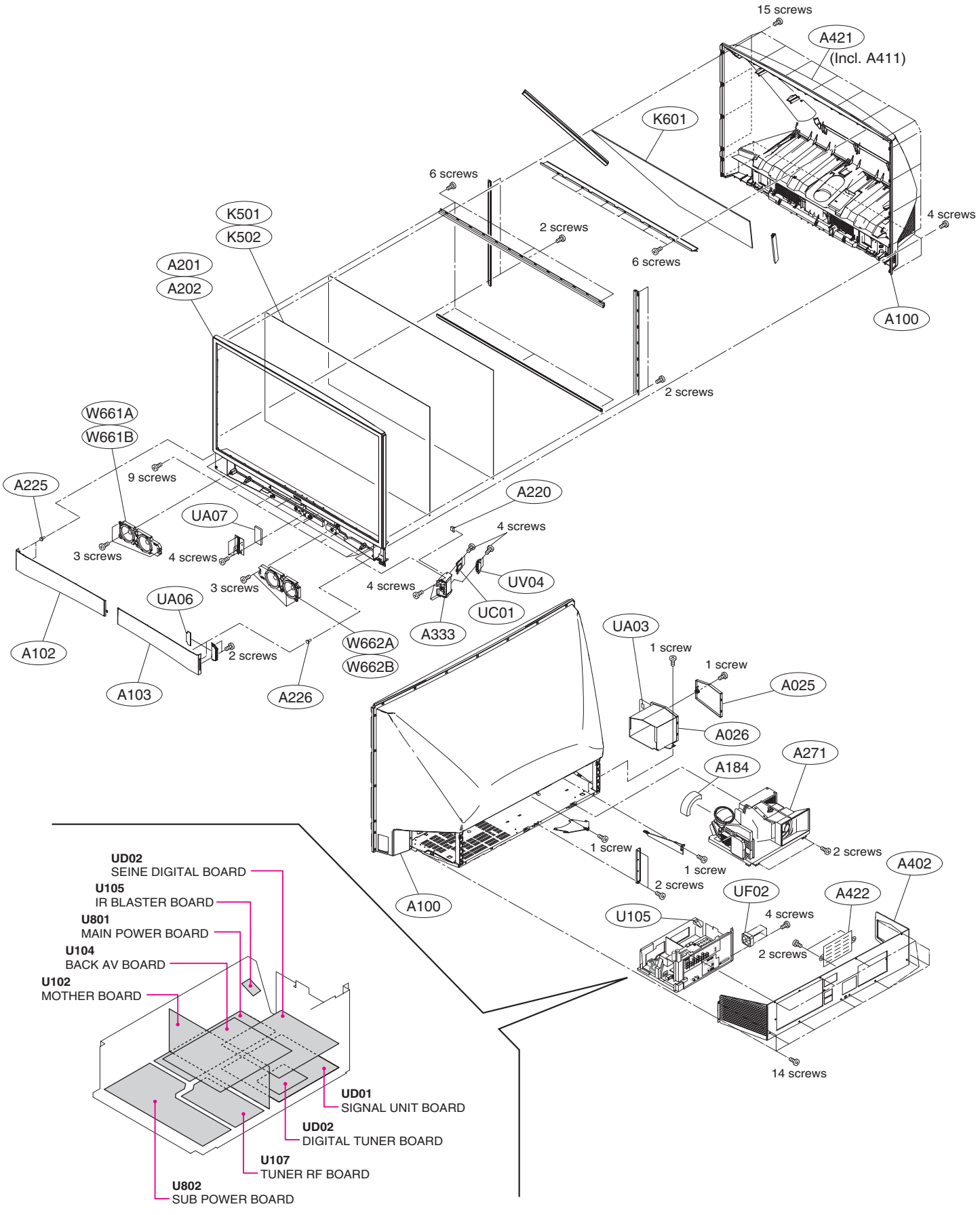
5-2. Disconnect and replace the cable between Smooth Picture and Formatter Boards (SK08).



6. LIGHT ENGINE UNIT

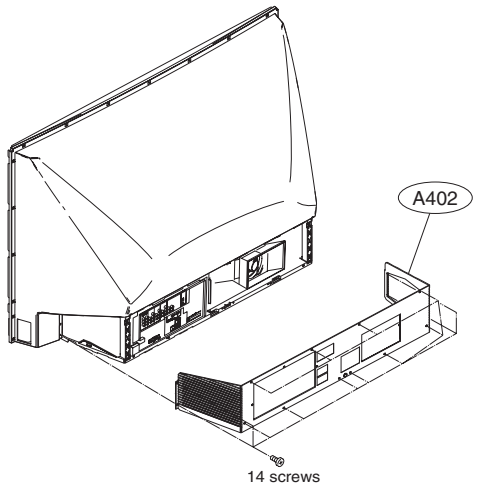
Location No.	Parts No.	Description
⚠ A271	23405480	OPTICAL ENGINE LV-682 TB 0C 56HM195 (Incl. E998Z, SK01-SK04, SK06,SK08,SK09)
⚠	23405481	OPTICAL ENGINE LV-682 TB 0D 62HM195 (Incl. E998Z, SK01-SK04, SK06,SK08,SK09)
	23405482	OPTICAL ENGINE LV-682 TB 0E 72HM195 (Incl. E998Z, SK01-SK04, SK06,SK08,SK09)
E998Z	23311153	EXCHANGE LAMP, PJ-D95-LMP
SK01	23587525	SERVICE KIT, LAMP FAN
SK02	23587526	SERVICE KIT, DMD FAN
SK03	23587527	SERVICE KIT, BALLAST FAN
SK04	23587528	SERVICE KIT, THERMOSTAT
SK06	23587536	SERVICE KIT, B TO F CABLE
SK08	23587538	SERVICE KIT, S TO F CABLE
SK09	23587539	SERVICE KIT, FAN TRANSFER CABLE

EXPLODED VIEW

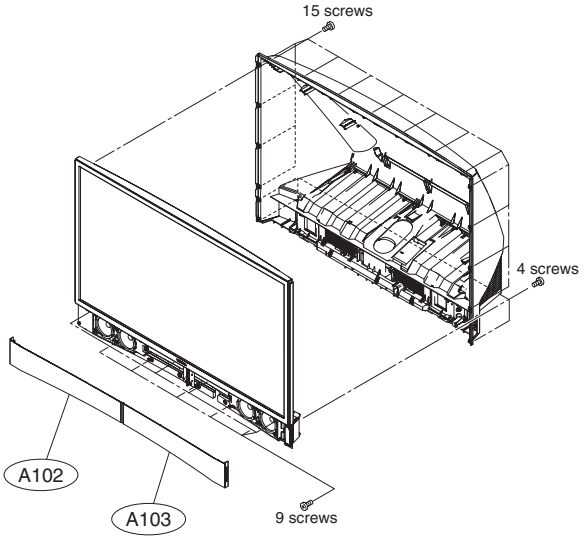


MECHANICAL DISASSEMBLY

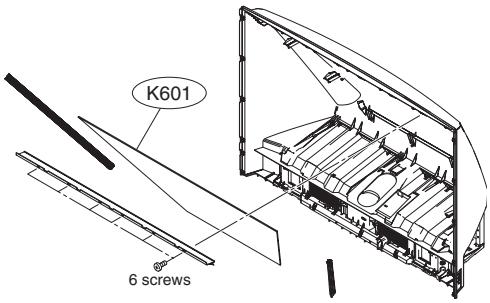
1. Rear Cover Removal



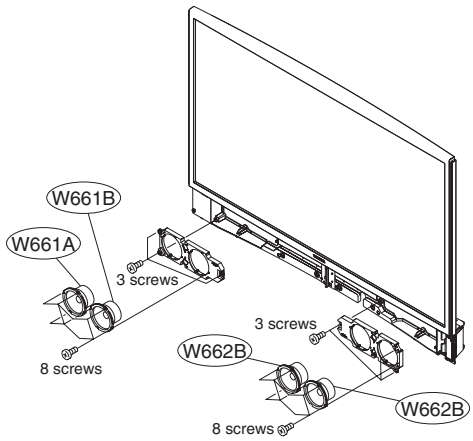
2. Touchpad & Bezel Ass'y Removal



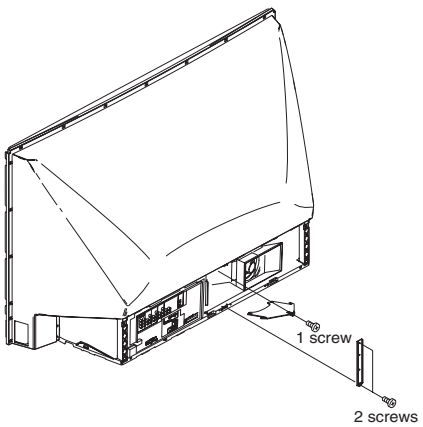
3. Mirror Removal



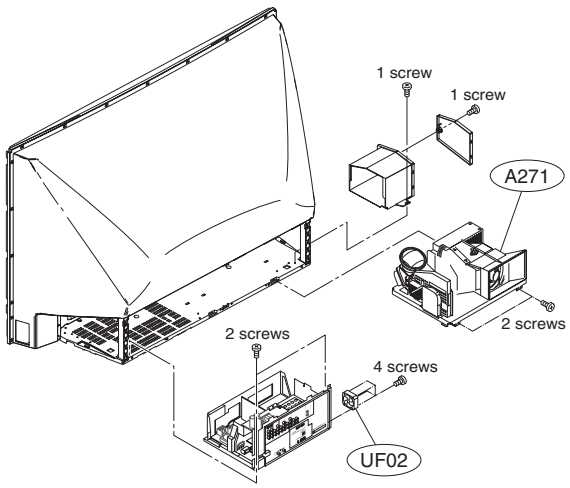
4. Speaker Removal



5. Bracket Removal



6. Optical Engine Removal



CHASSIS AND CABINET REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE. Do not degrade the safety of the receiver through improper servicing.

NOTICE:

The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.

The PC board assembly with ∗ mark is no longer available after the end of the production.

Model : 56/62/72HM195

Capacitors	CD	: Ceramic Disk	PF	: Plastic Film	EL	: Electrolytic
Resistors	CF	: Carbon Film	CC	: Carbon Composition	MF	: Metal Film
	OMF	: Oxide Metal Film	VR	: Variable Resistor	FR	: Fusible Resistor

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Parts No.	Description
#1 : [56HM195]		
#2 : [62HM195]		
#3 : [72HM195]		
CAPACITORS		
C001	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C002	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C003	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C004	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C005	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C006	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C007	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C008	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C009	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C010	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C011	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C012	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C013	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C014	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C015	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C016	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C017	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C018	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C019	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C020	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C021	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C022	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C023	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C024	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C025	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C026	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C027	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C028	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C029	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C030	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C031	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C032	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C033	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C034	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C035	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C036	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C037	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C038	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C039	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C040	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C041	76100104	CERAMIC CHIP, 25V F 0.1UF Z

Location No.	Parts No.	Description
C042	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C043	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C044	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C045	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C046	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C047	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C048	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C049	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C050	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C051	76100104	CERAMIC CHIP, 25V F 0.1UF Z
C102	76665221	ELECTROLYTIC, 10V 220UF M 3A
C103	76109102	CERAMIC CHIP, 50V B 1000PF K
C104	76073084	ELECTROLYTIC, 50V 4.7UF M 3A
C120	76092730	CERAMIC CHIP, 16V B 0.1UF K
C151	76109102	CERAMIC CHIP, 50V B 1000PF K
C152	76109102	CERAMIC CHIP, 50V B 1000PF K
C161	76109102	CERAMIC CHIP, 50V B 1000PF K
C162	76105101	CERAMIC CHIP, 50V CH 100PF J
C164	76092730	CERAMIC CHIP, 16V B 0.1UF K
C601	76109391	CERAMIC CHIP, 50V B 390PF K
C602	76109391	CERAMIC CHIP, 50V B 390PF K
C603	76797100	ELECTROLYTIC, 50V 10UF M
C604	76797100	ELECTROLYTIC, 50V 10UF M
C605	76073084	ELECTROLYTIC, 50V 4.7UF M 3A
C606	76073084	ELECTROLYTIC, 50V 4.7UF M 3A
C607	76073052	ELECTROLYTIC, 25V 47UF M 3A
C608	76073052	ELECTROLYTIC, 25V 47UF M 3A
C609	76073068	ELECTROLYTIC, 35V 100UF M 3A
C610	76073086	ELECTROLYTIC, 50V 10UF M 3A
C612	76073039	ELECTROLYTIC, 16V 220UF M 3A
C613	76503042	PLASTIC FILM, 63V 0.12UF J
C614	76503042	PLASTIC FILM, 63V 0.12UF J
C615	76073095	ELECTROLYTIC, 50V 2200UF M 3A
C616	76073095	ELECTROLYTIC, 50V 2200UF M 3A
C661	76766479	ELECTROLYTIC, 50V 4.7UF M
C662	76797100	ELECTROLYTIC, 50V 10UF M
C663	76797100	ELECTROLYTIC, 50V 10UF M
C664	76108560	CERAMIC CHIP, 50V SL 56PF J
C665	76567103	PLASTIC FILM, 50V 0.01UF J
C666	76766479	ELECTROLYTIC, 50V 4.7UF M
C667	76794100	ELECTROLYTIC, 16V 10UF M
C668	76108560	CERAMIC CHIP, 50V SL 56PF J
C680	76073094	ELECTROLYTIC, 50V 1000UF M 3A
C681	76109103	CERAMIC CHIP, 50V B 0.01UF K
C687	76796101	ELECTROLYTIC, 35V 100UF M
C688	76795470	ELECTROLYTIC, 25V 47UF M

Location No.	Parts No.	Description
⚠ C801	76503004	PLASTIC FILM, AC275V 0.47UF M
⚠ C803	76503002	PLASTIC FILM, AC275V 0.22UF M
C805	76092281	CERAMIC DISC, AC250V E 4700PF
C808	76095634	PLASTIC FILM, 630V 0.01UF H
C809	76086067	CHEMICON 200V 102M LGQ2D102MESHTL
C810	76086067	CHEMICON 200V 102M LGQ2D102MESHTL
⚠ C811	76092567	CERAMIC DISC, AC250V E 1000PF M
⚠ C812	76092567	CERAMIC DISC, AC250V E 1000PF M
C815	76285104	CERAMIC CHIP, 50V B 0.1UF K
C816	76669470	ELECTROLYTIC, 50V 47UF M
C817	76092179	CERAMIC CHIP, 25V B 0.22UF K
C818	76285104	CERAMIC CHIP, 50V B 0.1UF K
C819	76214102	CERAMIC DISC, 500V B 1000PF K
C820	76092463	CERAMIC CHIP, 16V B 0.22UF K
C821	76092343	CERAMIC DISC, 2KV 680PF K
C822	76092344	CERAMIC DISC, 2KV 820PF K
C823	76092337	CERAMIC DISC, 2KV 220PF K
C824	76109472	CERAMIC CHIP, 50V B 4700PF K
⚠ C825	76503117	PLASTIC FILM CQ92 T 800V 33000PF J
C826	76092338	CERAMIC DISC, 2KV R 270PF K
C827	76503053	PLASTIC FILM, 63V 1UF J
C828	76214103	CERAMIC DISC, 500V B 0.01UF K
C829	76678229	ELECTROLYTIC, 200V 2.2UF M
C840	76092730	CERAMIC CHIP, 16V B 0.1UF K
C855	76073157	ELECTROLYTIC, 16V 1500UF M 3A
C856	76073157	ELECTROLYTIC, 16V 1500UF M 3A
C857	76073172	ELECTROLYTIC, 25V 1000UF M 3A
C860	76073205	ELECTROLYTIC CE04P 50V 470UF M 3A
C870	76092178	CERAMIC CHIP, 25V B 0.1UF K
C898	76092178	CERAMIC CHIP, 25V B 0.1UF K
⚠ C899	76092567	CERAMIC DISC, AC250V E 1000PF M
C8905	76666221	ELECTROLYTIC, 16V 220UF M
C8910	76092738	CERAMIC CHIP, 25V B 0.47UF K
C8911	76073151	ELECTROLYTIC, 16V 120UF M 3A
C8920	76073053	ELECTROLYTIC, 25V 100UF M 3A
C8921	76092738	CERAMIC CHIP, 25V B 0.47UF K
C8922	76667470	ELECTROLYTIC, 25V 47UF M 3A
C8923	76666331	ELECTROLYTIC, 16V 330UF M
C8924	76092730	CERAMIC CHIP, 16V B 0.1UF K
C8931	76092738	CERAMIC CHIP, 25V B 0.47UF K
C8932	76667470	ELECTROLYTIC, 25V 47UF M 3A
C8933	76666331	ELECTROLYTIC, 16V 330UF M
C8934	76092730	CERAMIC CHIP, 16V B 0.1UF K
C8960	76092616	CERAMIC CHIP, 16V B 0.33UF K
C8961	76092730	CERAMIC CHIP, 16V B 0.1UF K
CB01	76794470	ELECTROLYTIC, 16V 47UF M
CB51	76590103	PLASTIC FILM, 50V 0.01UF J
CB52	76794470	ELECTROLYTIC, 16V 47UF M
CB53	76503041	PLASTIC FILM , 63V 0.1UF J
CB54	76436221	CERAMIC DISC, 50V SL 220PF J
CB55	76797010	ELECTROLYTIC, 50V 1UF M
CB56	76794470	ELECTROLYTIC, 16V 47UF M
CB58	76794470	ELECTROLYTIC, 16V 47UF M
CB59	76590103	PLASTIC FILM, 50V 0.01UF J
CB60	76794100	ELECTROLYTIC, 16V 10UF M
CB61	76503041	PLASTIC FILM , 63V 0.1UF J
CB82	76567474	PLASTIC FILM, 50V 0.47UF J
CB503	76092730	CERAMIC CHIP, 16V B 0.1UF K
CB504	76794100	ELECTROLYTIC, 16V 10UF M
CB505	76092730	CERAMIC CHIP, 16V B 0.1UF K
CB506	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CB507	76092730	CERAMIC CHIP, 16V B 0.1UF K
CB508	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CB509	76794101	ELECTROLYTIC, 16V 100UF M
CB510	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CC01	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC02	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC03	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC04	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76619100	ELECTROLYTIC CHIP, 16V 10UF M @UC01
CC05	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC06	76109102	CERAMIC CHIP, 50V B 1000PF K @U104

Location No.	Parts No.	Description
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC07	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76619100	ELECTROLYTIC CHIP, 16V 10UF M @UC01
CC08	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC09	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC10	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC11	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76619100	ELECTROLYTIC CHIP, 16V 10UF M @UC01
CC12	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092538	CERAMIC CHIP, 10V F 1UF Z @UC01
CC13	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC14	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC15	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76619100	ELECTROLYTIC CHIP, 16V 10UF M @UC01
CC16	76109102	CERAMIC CHIP, 50V B 1000PF K @U104
	76092730	CERAMIC CHIP, 16V B 0.1UF K @UC01
CC17	76619100	ELECTROLYTIC CHIP, 16V 10UF M
CC18	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC19	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC20	76619100	ELECTROLYTIC CHIP, 16V 10UF M
CC21	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC22	76092538	CERAMIC CHIP, 10V F 1UF Z
CC24	76092538	CERAMIC CHIP, 10V F 1UF Z
CC25	76092538	CERAMIC CHIP, 10V F 1UF Z
CC26	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC27	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC28	76619102	ELECTROLYTIC CHIP, 16V 47UF M
CC30	76619100	ELECTROLYTIC CHIP, 16V 10UF M
CC31	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC33	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC34	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC36	76619100	ELECTROLYTIC CHIP, 16V 10UF M
CC40	76092538	CERAMIC CHIP, 10V F 1UF Z
CC41	76092730	CERAMIC CHIP, 16V B 0.1UF K
CC42	76109103	CERAMIC CHIP, 50V B 0.01UF K
⚠ CE01	76503002	PLASTIC FILM, AC275V 0.22UF M
CE04	76092281	CERAMIC DISC, AC250V E 4700PF
CE05	76092281	CERAMIC DISC, AC250V E 4700PF
⚠ CE08	76503253	PLASTIC FILM, 1250VH 0.01UF H
CE09	76092337	CERAMIC DISC, 2KV 220PF K
CE10	76073217	ELECTROLYTIC, 200V 560UF M
⚠ CE11	76092565	CERAMIC DISC, AC250V B 470PF K
⚠ CE12	76092565	CERAMIC DISC, AC250V B 470PF K
⚠ CE13	76092565	CERAMIC DISC, AC250V B 470PF K
CE19	76073019	ELECTROLYTIC, 10V 470UF M 3A
CE30	76073183	ELECTROLYTIC, 35V 220UF M
CE31	76092730	CERAMIC CHIP, 16V B 0.1UF K
CE32	76073153	ELECTROLYTIC, 16V 470UF M 3A
CE33	76092730	CERAMIC CHIP, 16V B 0.1UF K
CE34	76109103	CERAMIC CHIP, 50V B 0.01UF K
CE35	76073168	ELECTROLYTIC CE04P 25V 330UF M 3A
CE36	76092730	CERAMIC CHIP, 16V B 0.1UF K
CE37	76073153	ELECTROLYTIC, 16V 470UF M 3A
CE38	76092730	CERAMIC CHIP, 16V B 0.1UF K
CE39	76109103	CERAMIC CHIP, 50V B 0.01UF K
CE40	76666470	ELECTORLYTIC, 16V 47UF M 3A
CE41	76092616	CERAMIC CHIP, 16V B 0.33UF K
CE42	76073137	ELECTROLYTIC CE04P 10V 100UF M 3A
CE48	76073168	ELECTROLYTIC CE04P 25V 330UF M 3A
CE49	76073183	ELECTROLYTIC, 35V 220UF M
CE50	76667470	ELECTROLYTIC, 25V 47UF M 3A
CE51	76092738	CERAMIC CHIP, 25V B 0.47UF K
CE52	76073151	ELECTROLYTIC, 16V 120UF M 3A
CE53	76666470	ELECTORLYTIC, 16V 47UF M 3A
CE54	76092616	CERAMIC CHIP, 16V B 0.33UF K
CE55	76073137	ELECTROLYTIC CE04P 10V 100UF M 3A
CE57	76667470	ELECTROLYTIC, 25V 47UF M 3A
CE58	76092738	CERAMIC CHIP, 25V B 0.47UF K
CE59	76073151	ELECTROLYTIC, 16V 120UF M 3A
CE61	76092339	CERAMIC DISC, 2KV 330PF K
CE62	76503049	PLASTIC FILM, 63V 0.47UF J

Location No.	Parts No.	Description
CE63	76669339	ELECTROLYTIC, 50V 3.3UF M
CE64	76503041	PLASTIC FILM , 63V 0.1UF J
CE65	76214221	CERAMIC DISC, 500V B 220PF K
CE68	76073180	ELECTROLYTIC CE04P 35V 33UF M 3A
CE72	76591471	PLASTIC FILM, 50V 470PF J
CE81	76214331	CERAMIC DISC, 500V B 330PF K
CE82	76214331	CERAMIC DISC, 500V B 330PF K
CE83	76214331	CERAMIC DISC, 500V B 330PF K
CE85	76073159	ELECTROLYTIC CE04P 16V 2700UF M 3A
CE86	76073174	ELECTROLYTIC, 25V 1500UF M 3A
CE87	76073189	ELECTROLYTIC, 35V 1000UF M
CE88	76676470	ELECTROLYTIC, 100V 47UF M 3A
CE89	76503041	PLASTIC FILM , 63V 0.1UF J
CE90	76073152	ELECTROLYTIC, 16V 330UF M 3A
CE91	76214102	CERAMIC DISC, 500V B 1000PF K
CE92	76109103	CERAMIC CHIP, 50V B 0.01UF K
CE93	76109103	CERAMIC CHIP, 50V B 0.01UF K
CE94	76109103	CERAMIC CHIP, 50V B 0.01UF K
CE95	76109103	CERAMIC CHIP, 50V B 0.01UF K
CF09	76073154	ELECTROLYTIC CE04P 16V 680UF M 3A
CF10	76073154	ELECTROLYTIC CE04P 16V 680UF M 3A
CF11	76092730	CERAMIC CHIP, 16V B 0.1UF K
CF12	76073154	ELECTROLYTIC CE04P 16V 680UF M 3A
CF13	76105471	CERAMIC CHIP, 50V CH 470PF J
CF14	76092731	CERAMIC CHIP, 16V B 1UF K
CF15	76109332	CERAMIC CHIP, 50V B 3300PF K
CF16	76109472	CERAMIC CHIP, 50V B 4700PF K
CF17	76815473	CERAMIC CHIP, 50V B 0.047UF K
CF18	76092790	CERAMIC CHIP CK732B 6.3V 10UF K
CF19	76073126	ELECTROLYTIC CE04P 6.3V 330UF M 3A
CF20	76092789	CERAMIC CHIP, 6.3V B 1UF K
CF21	76092789	CERAMIC CHIP, 6.3V B 1UF K
CF22	76073126	ELECTROLYTIC CE04P 6.3V 330UF M 3A
CF23	76092789	CERAMIC CHIP, 6.3V B 1UF K
CF24	76092789	CERAMIC CHIP, 6.3V B 1UF K
CF25	76092790	CERAMIC CHIP CK732B 6.3V 10UF K
CF26	76109103	CERAMIC CHIP, 50V B 0.01UF K
CF27	76109102	CERAMIC CHIP, 50V B 1000PF K
CF28	76092790	CERAMIC CHIP CK732B 6.3V 10UF K
CF29	76092790	CERAMIC CHIP CK732B 6.3V 10UF K
CF30	76073153	ELECTROLYTIC, 16V 470UF M 3A
CF31	76092731	CERAMIC CHIP, 16V B 1UF K
CF32	76073126	ELECTROLYTIC CE04P 6.3V 330UF M 3A
CF33	76092789	CERAMIC CHIP, 6.3V B 1UF K
CF34	76092730	CERAMIC CHIP, 16V B 0.1UF K
CF35	76092731	CERAMIC CHIP, 16V B 1UF K
CF36	76092789	CERAMIC CHIP, 6.3V B 1UF K
CF37	76073126	ELECTROLYTIC CE04P 6.3V 330UF M 3A
CF38	76073126	ELECTROLYTIC CE04P 6.3V 330UF M 3A
CF90	76667101	ELECTROLYTIC, 25V 100UF M
CF91	76073168	ELECTROLYTIC CE04P 25V 330UF M 3A
CF92	76092730	CERAMIC CHIP, 16V B 0.1UF K
CS01	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS02	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS03	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS04	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS05	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS06	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS07	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS08	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS09	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS10	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS11	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS12	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS13	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS14	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS15	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS16	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS17	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS18	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS19	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS20	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS21	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS22	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS23	76109103	CERAMIC CHIP, 50V B 0.01UF K
CS24	76794101	ELECTROLYTIC, 16V 100UF M

Location No.	Parts No.	Description
CS25	76794220	ELECTROLYTIC, 16V 22UF M
CS31	76794100	ELECTROLYTIC, 16V 10UF M
CS32	76794100	ELECTROLYTIC, 16V 10UF M
CS33	76797229	ELECTROLYTIC, 50V 2.2UF M
CV13	76794100	ELECTROLYTIC, 16V 10UF M
CV14	76232103	CERAMIC DISC, 50V F 0.01UF Z
CV15	76232103	CERAMIC DISC, 50V F 0.01UF Z
CV40	76793101	ELECTROLYTIC, 10V 100UF M
CV41	76109103	CERAMIC CHIP, 50V B 0.01UF K
CV43	76105330	CERAMIC CHIP, 50V CH 33PF J
CV44	76105270	CERAMIC CHIP, 50V CH 27PF J
CV45	76105220	CERAMIC CHIP, 50V CH 22PF J
CV61	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CV62	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CV63	76794100	ELECTROLYTIC, 16V 10UF M
CV64	76794471	ELECTROLYTIC, 16V 470UF M
CV65	76794101	ELECTROLYTIC, 16V 100UF M
CV66	76100104	CERAMIC CHIP, 25V F 0.1UF Z
CV67	76092795	CERAMIC CHIP, 6.3V B 2.2UF K
CV71	76794100	ELECTROLYTIC, 16V 10UF M
CV72	76794100	ELECTROLYTIC, 16V 10UF M
CV74	76794100	ELECTROLYTIC, 16V 10UF M
CV75	76794100	ELECTROLYTIC, 16V 10UF M
CV76	76794100	ELECTROLYTIC, 16V 10UF M
CV77	76794100	ELECTROLYTIC, 16V 10UF M
CV78	76109103	CERAMIC CHIP, 50V B 0.01UF K
CV80	76793471	ELECTROLYTIC, 10V 470UF M
CV87	76109103	CERAMIC CHIP, 50V B 0.01UF K
CV200	76794100	ELECTROLYTIC, 16V 10UF M
CV201	76794100	ELECTROLYTIC, 16V 10UF M
CV202	76085981	ELECTROLYTIC, NP, 16V 10UF M 11L
CV203	76109103	CERAMIC CHIP, 50V B 0.01UF K
RESISTORS		
R103	76011101	CHIP, 1/20W 100 OHM J
R104	76011103	CHIP, 1/20W 10K OHM J
R105	76011273	CHIP, 1/20W 27K OHM J
R107	76000445	CHIP JUMPER, 1608TYPE
R108	76000445	CHIP JUMPER, 1608TYPE
R110	76011682	CHIP, 1/20W 6.8K OHM J
R114	76000445	CHIP JUMPER, 1608TYPE
R161	76011102	CHIP, 1/20W 1K OHM J
R165	76011392	CHIP, 1/20W 3.9K OHM J
R166	76011472	CHIP, 1/20W 4.7K OHM J
R167	76011101	CHIP, 1/20W 100 OHM J
R168	76011101	CHIP, 1/20W 100 OHM J
R601	76011272	CHIP, 1/20W 2.7K OHM J
R602	76011272	CHIP, 1/20W 2.7K OHM J
R603	76011152	CHIP, 1/20W 1.5K OHM J
R604	76011152	CHIP, 1/20W 1.5K OHM J
R609	76366229	CARBON FILM, 1/6W 2.2 OHM J
R610	76366229	CARBON FILM, 1/6W 2.2 OHM J
R611	76011103	CHIP, 1/20W 10K OHM J
R612	76011222	CHIP, 1/20W 2.2K OHM J
R613	76011223	CHIP, 1/20W 22K OHM J
R614	76011223	CHIP, 1/20W 22K OHM J
R661	76011102	CHIP, 1/20W 1K OHM J
R662	76011562	CHIP, 1/20W 5.6K OHM J
R663	76011822	CHIP, 1/20W 8.2K OHM J
R665	76011223	CHIP, 1/20W 22K OHM J
R666	76011473	CHIP, 1/20W 47K OHM J
R667	76011223	CHIP, 1/20W 22K OHM J
R668	76011473	CHIP, 1/20W 47K OHM J
R671	76011102	CHIP, 1/20W 1K OHM J
R672	76011562	CHIP, 1/20W 5.6K OHM J
R673	76011822	CHIP, 1/20W 8.2K OHM J
R674	76011472	CHIP, 1/20W 4.7K OHM J
R676	76011104	CHIP, 1/20W 100K OHM J
R677	76011104	CHIP, 1/20W 100K OHM J
R683	76011223	CHIP, 1/20W 22K OHM J
R684	76011223	CHIP, 1/20W 22K OHM J
R687	76011103	CHIP, 1/20W 10K OHM J
R688	76011224	CHIP, 1/20W 220K OHM J
R697	76553152	OXIDE METAL FILM, 1W 1.5K OHM J
R698	76011103	CHIP, 1/20W 10K OHM J
R699	76011103	CHIP, 1/20W 10K OHM J

Location No.	Parts No.	Description
R803	76011333	CHIP, 1/20W 33K OHM J
R805	76120001	CEMENT RES 141C 2.1W 1R8 K
R807	76011223	CHIP, 1/20W 22K OHM J
R808	76552470	OXIDE METAL FILM, 1/2W 47 OHM J
R809	76321689	OXIDE METAL FILM, 1/2W 6.8 OHM J
R810	76382150	OXIDE METAL FILM, 1W 15 OHM J
R811	76552820	OXIDE METAL FILM, 1/2W 82 OHM J
R812	76552390	OXIDE METAL FILM, 1/2W 39 OHM J
R813	76366150	CARBON FILM, 1/6W 15 OHM J
R814	76871473	CHIP, 1/8W 47K OHM J
R815	76552100	OXIDE METAL FILM, 1/2W 10 OHM J
R816	76011102	CHIP, 1/20W 1K OHM J
R817	76871473	CHIP, 1/8W 47K OHM J
R818	76871473	CHIP, 1/8W 47K OHM J
R819	76871473	CHIP, 1/8W 47K OHM J
R820	76871473	CHIP, 1/8W 47K OHM J
R821	76871105	CHIP, 1/8W 1M OHM J
R822	76871105	CHIP, 1/8W 1M OHM J
R823	76871105	CHIP, 1/8W 1M OHM J
R824	76871105	CHIP, 1/8W 1M OHM J
R825	76011104	CHIP, 1/20W 100K OHM J
R826	76011473	CHIP, 1/20W 47K OHM J
R827	76383473	OXIDE METAL FILM, 2W 47K OHM J
R828	76011104	CHIP, 1/20W 100K OHM J
R829	76011822	CHIP, 1/20W 8.2K OHM J
R830	76011822	CHIP, 1/20W 8.2K OHM J
R840	76552470	OXIDE METAL FILM, 1/2W 47 OHM J
R841	76011103	CHIP, 1/20W 10K OHM J
R843	76011333	CHIP, 1/20W 33K OHM J
R844	76011103	CHIP, 1/20W 10K OHM J
R845	76011332	CHIP, 1/20W 3.3K OHM J
R846	76011103	CHIP, 1/20W 10K OHM J
R847	76011153	CHIP, 1/2OW 15K OHM J
R848	76011332	CHIP, 1/20W 3.3K OHM J
R849	76011103	CHIP, 1/20W 10K OHM J
R850	76011472	CHIP, 1/20W 4.7K OHM J
R851	76011333	CHIP, 1/20W 33K OHM J
R852	76011102	CHIP, 1/20W 1K OHM J
R871	76998332	CHIP, 1/16W 3.3K OHM
R872	76998103	CHIP, 1/16W 10K OHM
R873	76011100	CHIP, 1/20W 10 OHM J
R874	76011102	CHIP, 1/20W 1K OHM J
R875	76011471	CHIP, 1/20W 470 OHM J
R876	76011102	CHIP, 1/20W 1K OHM J
R877	76011471	CHIP, 1/20W 470 OHM J
R880	76552102	OXIDE METAL FILM, 1/2W 1K OHM J
⚠ R899	76005014	METAL FILM, 1W 8.2M OHM J
R8910	76998563	CHIP, 1/16W 56K OHM
R8911	76998562	CHIP, 1/16W 5.6K OHM
R8912	76998102	CHIP, 1/16W 1K OHM
R8921	76011123	CHIP, 1/20W 12K OHM J
R8922	76011182	CHIP, 1/20W 1.8K OHM J
R8923	76011472	CHIP, 1/20W 4.7K OHM J
R8924	76011103	CHIP, 1/20W 10K OHM J
R8931	76011123	CHIP, 1/20W 12K OHM J
R8932	76011182	CHIP, 1/20W 1.8K OHM J
R8933	76011472	CHIP, 1/20W 4.7K OHM J
R8934	76011103	CHIP, 1/20W 10K OHM J
R8950	76011821	CHIP, 1/20W 820 OHM J
R8951	76011473	CHIP, 1/20W 47K OHM J
R8952	76011102	CHIP, 1/20W 1K OHM J
R8953	76011333	CHIP, 1/20W 33K OHM J
R8954	76011333	CHIP, 1/20W 33K OHM J
R8955	76011472	CHIP, 1/20W 4.7K OHM J
R8956	76011681	CHIP, 1/20W 680 OHM J
R8960	76011334	CHIP, 1/20W 330K OHM J
R8961	76011223	CHIP, 1/20W 22K OHM J
R8962	76011223	CHIP, 1/20W 22K OHM J
R8963	76011102	CHIP, 1/20W 1K OHM J
R8964	76011103	CHIP, 1/20W 10K OHM J
RA71	76011103	CHIP, 1/20W 10K OHM J
RA72	76011223	CHIP, 1/20W 22K OHM J
RA73	76011683	CHIP, 1/20W 68K OHM J
RA75	76011103	CHIP, 1/20W 10K OHM J
RA76	76011223	CHIP, 1/20W 22K OHM J
RB15	76366471	CARBON FILM, 1/6W 470 OHM J

Location No.	Parts No.	Description
RB19	76366470	CARBON FILM, 1/6W 47 OHM J
RB51	76366224	CARBON FILM, 1/6W 220K OHM J
RB52	76366123	CARBON FILM, 1/6W 12K OHM J
RB53	76366123	CARBON FILM, 1/6W 12K OHM J
RB54	76366123	CARBON FILM, 1/6W 12K OHM J
RB55	76366224	CARBON FILM, 1/6W 220K OHM J
RB56	76366151	CARBON FILM, 1/6W 150 OHM J
RB57	76366103	CARBON FILM, 1/6W 10K OHM J
RB58	76366103	CARBON FILM, 1/6W 10K OHM J
RB59	76366122	CARBON FILM, 1/6W 1.2K OHM J
RB60	76366224	CARBON FILM, 1/6W 220K OHM J
RB61	76366100	CARBON FILM, 1/6W 10 OHM J
RB62	76366272	CARBON FILM, 1/6W 2.7K OHM J
RB63	76366271	CARBON FILM, 1/6W 270 OHM J
RB67	76366221	CARBON FILM, 1/6W 220 OHM J
RB69	76366272	CARBON FILM, 1/6W 2.7K OHM J
RB70	76366331	CARBON FILM, 1/6W 330 OHM J
RB81	76011473	CHIP, 1/20W 47K OHM J @U104
#1	76011681	CHIP, 1/20W 680 OHM J @UA07
#2	76011331	CHIP, 1/20W 330 OHM J @UA07
#3	76011681	CHIP, 1/20W 680 OHM J @UA07
RB82 #1	76011152	CHIP, 1/20W 1.5K OHM J
#2	76011391	CHIP, 1/20W 390 OHM J
#3	76011152	CHIP, 1/20W 1.5K OHM J
RB83	76011102	CHIP, 1/20W 1K OHM J
RB84	76011473	CHIP, 1/20W 47K OHM J
RB92	76011473	CHIP, 1/20W 47K OHM J
RB93	76011102	CHIP, 1/20W 1K OHM J
RB502	76011332	CHIP, 1/20W 3.3K OHM J
RB503	76011332	CHIP, 1/20W 3.3K OHM J
RB504	76366104	CARBON FILM, 1/6W 100K OHM J
RB505	76366101	CARBON FILM, 1/6W 100 OHM J
RB506	76366390	CARBON FILM, 1/6W 39 OHM J
RB516	76011472	CHIP, 1/20W 4.7K OHM J
RB517	76011472	CHIP, 1/20W 4.7K OHM J
RB518	76011101	CHIP, 1/20W 100 OHM J
RB519	76011472	CHIP, 1/20W 4.7K OHM J
RB520	76011472	CHIP, 1/20W 4.7K OHM J
RB521	76011472	CHIP, 1/20W 4.7K OHM J
RB522	76011472	CHIP, 1/20W 4.7K OHM J
RB523	76011472	CHIP, 1/20W 4.7K OHM J
RB524	76011472	CHIP, 1/20W 4.7K OHM J
RB525	76011102	CHIP, 1/20W 1K OHM J
RB526	76011103	CHIP, 1/20W 10K OHM J
RB527	76011103	CHIP, 1/20W 10K OHM J
RB528	76011472	CHIP, 1/20W 4.7K OHM J
RB529	76011472	CHIP, 1/20W 4.7K OHM J
RB554	76011101	CHIP, 1/20W 100 OHM J
RB555	76011103	CHIP, 1/20W 10K OHM J
RB556	76011101	CHIP, 1/20W 100 OHM J
RB557	76011103	CHIP, 1/20W 10K OHM J
RB558	76366223	CARBON FILM, 1/6W 22K OHM J
RB559	76366223	CARBON FILM, 1/6W 22K OHM J
RB560	76011101	CHIP, 1/20W 100 OHM J
RB561	76011472	CHIP, 1/20W 4.7K OHM J
RB562	76366104	CARBON FILM, 1/6W 100K OHM J
RB563	76366390	CARBON FILM, 1/6W 39 OHM J
RB565	76366101	CARBON FILM, 1/6W 100 OHM J
RB566	76011102	CHIP, 1/20W 1K OHM J
RB567	76366223	CARBON FILM, 1/6W 22K OHM J
RB576	76011153	CHIP, 1/2OW 15K OHM J
RC01	76011101	CHIP, 1/20W 100 OHM J @U104
	76011223	CHIP, 1/20W 22K OHM J @UC01
RC02	76011101	CHIP, 1/20W 100 OHM J @U104
	76011220	CHIP, 1/20W 22 OHM J @UC01
RC03	76011101	CHIP, 1/20W 100 OHM J @U104
	76011220	CHIP, 1/20W 22 OHM J @UC01
RC04	76011101	CHIP, 1/20W 100 OHM J @U104
	76011220	CHIP, 1/20W 22 OHM J @UC01
RC05	76011101	CHIP, 1/20W 100 OHM J @U104
	76011220	CHIP, 1/20W 22 OHM J @UC01
RC06	76011101	CHIP, 1/20W 100 OHM J @U104
	76011220	CHIP, 1/20W 22 OHM J @UC01
RC07	76011101	CHIP, 1/20W 100 OHM J @U104
	76011220	CHIP, 1/20W 22 OHM J @UC01
RC08	76011101	CHIP, 1/20W 100 OHM J @U104

Location No.	Parts No.	Description
	76011220	CHIP, 1/20W 22 OHM J @UC01
RC09	76011101	CHIP, 1/20W 100 OHM J @U104
	76011270	CHIP, 1/20W 27 OHM J @UC01
RC10	76011101	CHIP, 1/20W 100 OHM J @U104
	76011270	CHIP, 1/20W 27 OHM J @UC01
RC11	76011101	CHIP, 1/20W 100 OHM J @U104
	76011334	CHIP, 1/20W 330K OHM J @UC01
RC12	76011101	CHIP, 1/20W 100 OHM J @U104
	76011103	CHIP, 1/20W 10K OHM J @UC01
RC13	76011101	CHIP, 1/20W 100 OHM J @U104
	76000824	CHIP JUMPER, 2125TYPE @UC01
RC14	76011101	CHIP, 1/20W 100 OHM J @U104
	76000824	CHIP JUMPER, 2125TYPE @UC01
RC15	76000824	CHIP JUMPER, 2125TYPE
RC16	76011103	CHIP, 1/20W 10K OHM J
RC17	76000824	CHIP JUMPER, 2125TYPE
RC18	76000824	CHIP JUMPER, 2125TYPE
RC19	76000824	CHIP JUMPER, 2125TYPE
RC20	76000824	CHIP JUMPER, 2125TYPE
RC21	76011103	CHIP, 1/20W 10K OHM J
RC22	76011103	CHIP, 1/20W 10K OHM J
RC23	76011103	CHIP, 1/20W 10K OHM J
RC24	76011103	CHIP, 1/20W 10K OHM J
RC25	76011103	CHIP, 1/20W 10K OHM J
RC26	76011103	CHIP, 1/20W 10K OHM J
RC27	76011103	CHIP, 1/20W 10K OHM J
RC28	76011103	CHIP, 1/20W 10K OHM J
RC32	76011331	CHIP, 1/20W 330 OHM J
RC33	76011103	CHIP, 1/20W 10K OHM J
RC34	76011331	CHIP, 1/20W 330 OHM J
RC35	76011103	CHIP, 1/20W 10K OHM J
RC36	76011331	CHIP, 1/20W 330 OHM J
RC37	76011103	CHIP, 1/20W 10K OHM J
RC38	76011331	CHIP, 1/20W 330 OHM J
RC39	76011103	CHIP, 1/20W 10K OHM J
RC40	76011102	CHIP, 1/20W 1K OHM J
RC41	76011105	CHIP, 1/20W 1M OHM J
RC49	76011103	CHIP, 1/20W 10K OHM J
RC50	76011123	CHIP, 1/20W 12K OHM J
RC51	76011103	CHIP, 1/20W 10K OHM J
RC52	76011103	CHIP, 1/20W 10K OHM J
RC53	76011103	CHIP, 1/20W 10K OHM J
RC54	76011220	CHIP, 1/20W 22 OHM J
RC55	76011103	CHIP, 1/20W 10K OHM J
RC61	76011564	CHIP, 1/20W 560K OHM J
RC62	76011103	CHIP, 1/20W 10K OHM J
RE08	76554683	OXIDE RES 2W 68K J
RE14	76011472	CHIP, 1/20W 4.7K OHM J
RE15	76011102	CHIP, 1/20W 1K OHM J
RE16	76382221	OXIDE METAL FILM, 1W 220 OHM J
RE17	76011103	CHIP, 1/20W 10K OHM J
RE19	76011183	CHIP, 1/20W 18K OHM J
RE20	76011333	CHIP, 1/20W 33K OHM J
RE21	76011103	CHIP, 1/20W 10K OHM J
RE22	76011103	CHIP, 1/20W 10K OHM J
RE23	76011473	CHIP, 1/20W 47K OHM J
RE24	76011103	CHIP, 1/20W 10K OHM J
RE25	76011333	CHIP, 1/20W 33K OHM J
RE26	76011103	CHIP, 1/20W 10K OHM J
RE27	76011103	CHIP, 1/20W 10K OHM J
RE28	76011473	CHIP, 1/20W 47K OHM J
RE29	76011103	CHIP, 1/20W 10K OHM J
RE30	76998102	CHIP, 1/16W 1K OHM
RE31	76998152	CHIP, 1/16W 1.5K OHM D
RE32	76998181	CHIP, 1/16W 180 OHM
RE33	76011102	CHIP, 1/20W 1K OHM J
RE34	76011473	CHIP, 1/20W 47K OHM J
RE35	76011103	CHIP, 1/20W 10K OHM J
RE36	76011103	CHIP, 1/20W 10K OHM J
RE37	76011333	CHIP, 1/20W 33K OHM J
RE38	76998102	CHIP, 1/16W 1K OHM
RE39	76998152	CHIP, 1/16W 1.5K OHM D
RE40	76998273	CHIP, 1/16W 27K OHM
RE41	76998823	CHIP, 1/16W 82K OHM
RE42	76011103	CHIP, 1/20W 10K OHM J
RE43	76011223	CHIP, 1/20W 22K OHM J

Location No.	Parts No.	Description
RE44	76011103	CHIP, 1/20W 10K OHM J
RE45	76011223	CHIP, 1/20W 22K OHM J
RE47	76998333	CHIP, 1/16W 33K OHM
RE48	76998104	CHIP, 1/16W 100K OHM D
RE49	76998102	CHIP, 1/16W 1K OHM
RE50	76998181	CHIP, 1/16W 180 OHM
RE51	76011102	CHIP, 1/20W 1K OHM J
RE52	76011333	CHIP, 1/20W 33K OHM J
RE53	76011103	CHIP, 1/20W 10K OHM J
RE54	76011103	CHIP, 1/20W 10K OHM J
RE55	76011333	CHIP, 1/20W 33K OHM J
RE56	76998153	CHIP, 1/16W 15K OHM
RE57	76998823	CHIP, 1/16W 82K OHM
RE58	76998123	CHIP, 1/16W 12K OHM
RE59	76011332	CHIP, 1/20W 3.3K OHM J
RE61	76382473	OXIDE METAL FILM, 1W 47K OHM J
RE62	76322688	OXIDE METAL FILM, 1W 0.68 OHM J
RE63	76322688	OXIDE METAL FILM, 1W 0.68 OHM J
RE64	76381221	OXIDE METAL FILM, 1/2W 220 OHM J
RE65	76366102	CARBON FILM, 1/6W 1K OHM J
RE66	76366102	CARBON FILM, 1/6W 1K OHM J
RE71	76310829	OXIDE METAL FILM, 1/2W 8.2 OHM J
RE72	76552222	OXIDE METAL FILM, 1/2W 2.2K OHM J
RE73	76366102	CARBON FILM, 1/6W 1K OHM J
RE81	76998821	CHIP, 1/16W 820 OHM
RE82	76998103	CHIP, 1/16W 10K OHM
RE83	76998682	CHIP, 1/16W 6.8K OHM D
RE84	76011471	CHIP, 1/20W 470 OHM J
RE85	76011222	CHIP, 1/20W 2.2K OHM J
RE86	76011102	CHIP, 1/20W 1K OHM J
RE89	76011223	CHIP, 1/20W 22K OHM J
RE90	76011103	CHIP, 1/20W 10K OHM J
RE91	76011333	CHIP, 1/20W 33K OHM J
RE92	76011104	CHIP, 1/20W 100K OHM J
RE93	76011223	CHIP, 1/20W 22K OHM J
RE94	76011103	CHIP, 1/20W 10K OHM J
RE95	76382222	OXIDE METAL FILM, 1W 2.2K OHM J
RE96	76011102	CHIP, 1/20W 1K OHM J
RE97	76382101	OXIDE METAL FILM, 1W 100 OHM J
RE98	76011103	CHIP, 1/20W 10K OHM J
RE99	76011472	CHIP, 1/20W 4.7K OHM J
RF07	76011122	CHIP, 1/20W 1.2K OHM J
RF08	76011153	CHIP, 1/2OW 15K OHM J
RF09	76011103	CHIP, 1/20W 10K OHM J
RF10	76998153	CHIP, 1/16W 15K OHM
RF11	76998104	CHIP, 1/16W 100K OHM D
RF12	76998473	CHIP, 1/16W 47K OHM
RF13	76011152	CHIP, 1/20W 1.5K OHM J
RF14	76011474	CHIP, 1/20W 470K OHM J
RF15	76011682	CHIP, 1/20W 6.8K OHM J
RF18	76998103	CHIP, 1/16W 10K OHM
RF19	76998682	CHIP, 1/16W 6.8K OHM D
RF20	76998822	CHIP, 1/16W 8.2K OHM
RF21	76998683	CHIP, 1/16W 68K OHM D
RF22	76998473	CHIP, 1/16W 47K OHM
RF23	76011474	CHIP, 1/20W 470K OHM J
RF24	76998103	CHIP, 1/16W 10K OHM
RF25	76998153	CHIP, 1/16W 15K OHM
RF26	76011682	CHIP, 1/20W 6.8K OHM J
RF27	76011332	CHIP, 1/20W 3.3K OHM J
RF29	76011332	CHIP, 1/20W 3.3K OHM J
RF30	76998272	CHIP, 1/16W 2.7K OHM
RF31	76998221	CHIP, 1/16W 220 OHM
RF32	76998182	CHIP, 1/16W 1.8K OHM
RF33	76011220	CHIP, 1/20W 22 OHM J
RF34	76011220	CHIP, 1/20W 22 OHM J
RF35	76011684	CHIP, 1/20W 680K OHM J
RF90	76382330	OXIDE METAL FILM, 1W 33 OHM J
RS01	76011562	CHIP, 1/20W 5.6K OHM J
RS02	76011562	CHIP, 1/20W 5.6K OHM J
RS03	76011562	CHIP, 1/20W 5.6K OHM J
RS04	76011562	CHIP, 1/20W 5.6K OHM J
RS05	76011562	CHIP, 1/20W 5.6K OHM J
RS06	76011562	CHIP, 1/20W 5.6K OHM J
RS07	76011562	CHIP, 1/20W 5.6K OHM J
RS08	76011562	CHIP, 1/20W 5.6K OHM J

Location No.	Parts No.	Description
RS09	76011562	CHIP, 1/20W 5.6K OHM J
RS10	76011562	CHIP, 1/20W 5.6K OHM J
RS11	76011562	CHIP, 1/20W 5.6K OHM J
RS12	76011562	CHIP, 1/20W 5.6K OHM J
RS13	76011562	CHIP, 1/20W 5.6K OHM J
RS14	76011562	CHIP, 1/20W 5.6K OHM J
RS15	76011562	CHIP, 1/20W 5.6K OHM J
RS16	76011562	CHIP, 1/20W 5.6K OHM J
RS17	76011562	CHIP, 1/20W 5.6K OHM J
RS18	76011562	CHIP, 1/20W 5.6K OHM J
RS19	76011562	CHIP, 1/20W 5.6K OHM J
RS20	76011562	CHIP, 1/20W 5.6K OHM J
RS21	76011562	CHIP, 1/20W 5.6K OHM J
RS22	76011562	CHIP, 1/20W 5.6K OHM J
RS23	76011101	CHIP, 1/20W 100 OHM J
RS24	76011101	CHIP, 1/20W 100 OHM J
RS25	76011101	CHIP, 1/20W 100 OHM J
RS26	76011101	CHIP, 1/20W 100 OHM J
RS27	76011101	CHIP, 1/20W 100 OHM J
RS28	76011101	CHIP, 1/20W 100 OHM J
RS29	76011682	CHIP, 1/20W 6.8K OHM J
RS30	76011182	CHIP, 1/20W 1.8K OHM J
RS31	76011100	CHIP, 1/20W 10 OHM J
RS32	76011221	CHIP, 1/20W 220 OHM J
RS33	76011222	CHIP, 1/20W 2.2K OHM J
RS34	76011221	CHIP, 1/20W 220 OHM J
RS35	76011222	CHIP, 1/20W 2.2K OHM J
RS37	76011101	CHIP, 1/20W 100 OHM J
RS38	76011101	CHIP, 1/20W 100 OHM J
RS41	76011821	CHIP, 1/20W 820 OHM J
RS42	76011821	CHIP, 1/20W 820 OHM J
RS43	76011223	CHIP, 1/20W 22K OHM J
RS44	76011223	CHIP, 1/20W 22K OHM J
RS45	76011104	CHIP, 1/20W 100K OHM J
RS46	76011104	CHIP, 1/20W 100K OHM J
RS47	76011222	CHIP, 1/20W 2.2K OHM J
RV10	76011222	CHIP, 1/20W 2.2K OHM J
RV11	76011222	CHIP, 1/20W 2.2K OHM J
RV12	76011222	CHIP, 1/20W 2.2K OHM J
RV20	76366750	CARBON FILM, 1/6W 75 OHM J
RV21	76366750	CARBON FILM, 1/6W 75 OHM J
RV22	76366750	CARBON FILM, 1/6W 75 OHM J
RV23	76366101	CARBON FILM, 1/6W 100 OHM J
RV33	76011750	CHIP, 1/20W 75 OHM J
RV34	76011750	CHIP, 1/20W 75 OHM J
RV35	76011750	CHIP, 1/20W 75 OHM J
RV36	76011750	CHIP, 1/20W 75 OHM J
RV37	76011750	CHIP, 1/20W 75 OHM J
RV40	76011750	CHIP, 1/20W 75 OHM J
RV41	76011391	CHIP, 1/20W 390 OHM J
RV42	76011331	CHIP, 1/20W 330 OHM J
RV44	76011332	CHIP, 1/20W 3.3K OHM J
RV45	76000445	CHIP JUMPER, 1608TYPE
RV46	76011100	CHIP, 1/20W 10 OHM J
RV47	76011100	CHIP, 1/20W 10 OHM J
RV51	76011750	CHIP, 1/20W 75 OHM J
RV52	76011750	CHIP, 1/20W 75 OHM J
RV53	76011750	CHIP, 1/20W 75 OHM J
RV54	76011750	CHIP, 1/20W 75 OHM J
RV55	76011750	CHIP, 1/20W 75 OHM J
RV56	76011750	CHIP, 1/20W 75 OHM J
RV61	76011101	CHIP, 1/20W 100 OHM J
RV62	76011101	CHIP, 1/20W 100 OHM J
RV63	76011101	CHIP, 1/20W 100 OHM J
RV64	76011101	CHIP, 1/20W 100 OHM J
RV65	76011101	CHIP, 1/20W 100 OHM J
RV66	76011750	CHIP, 1/20W 75 OHM J
RV160	76011101	CHIP, 1/20W 100 OHM J
RV161	76011101	CHIP, 1/20W 100 OHM J
RV162	76011101	CHIP, 1/20W 100 OHM J
RV163	76011101	CHIP, 1/20W 100 OHM J
RV164	76011101	CHIP, 1/20W 100 OHM J
RV165	76011101	CHIP, 1/20W 100 OHM J
RV166	76011681	CHIP, 1/20W 680 OHM J
RV167	76011681	CHIP, 1/20W 680 OHM J
RV168	76011681	CHIP, 1/20W 680 OHM J

Location No.	Parts No.	Description
RV169	76011101	CHIP, 1/20W 100 OHM J
RV200	76011101	CHIP, 1/20W 100 OHM J
RV201	76011101	CHIP, 1/20W 100 OHM J
RV202	76011102	CHIP, 1/20W 1K OHM J
GR02	76000445	CHIP JUMPER, 1608TYPE
GR003	76000576	CHIP JUMPER, 3216TYPE
GR03	76000445	CHIP JUMPER, 1608TYPE
GR004	76000576	CHIP JUMPER, 3216TYPE
GR04	76000445	CHIP JUMPER, 1608TYPE
GR10	76000445	CHIP JUMPER, 1608TYPE
GR11	76000445	CHIP JUMPER, 1608TYPE
GR12	76000445	CHIP JUMPER, 1608TYPE
GR25	76000445	CHIP JUMPER, 1608TYPE
GR26	76000445	CHIP JUMPER, 1608TYPE
GR27	76000445	CHIP JUMPER, 1608TYPE
GR28	76000445	CHIP JUMPER, 1608TYPE
GR30	76000445	CHIP JUMPER, 1608TYPE
GR112	76000445	CHIP JUMPER, 1608TYPE
GR113	76000445	CHIP JUMPER, 1608TYPE
GR120	76000445	CHIP JUMPER, 1608TYPE
GR121	76000445	CHIP JUMPER, 1608TYPE
GR122	76000445	CHIP JUMPER, 1608TYPE
GR123	76000445	CHIP JUMPER, 1608TYPE
GR603	76000445	CHIP JUMPER, 1608TYPE
GR604	76000445	CHIP JUMPER, 1608TYPE
GR612	76000445	CHIP JUMPER, 1608TYPE
GR613	76000445	CHIP JUMPER, 1608TYPE
GRS02	76000445	CHIP JUMPER, 1608TYPE
ZC01	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC02	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC03	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC04	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC05	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC06	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC07	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC08	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC09	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC10	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC11	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC12	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC13	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC16	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC18	76019479	CHIP BLOCK, 1/32W 22 OHM J, P-8
ZC19	76019404	CHIP BLOCK, 1/16W 10K OHM J, P-8
ZC21	76019404	CHIP BLOCK, 1/16W 10K OHM J, P-8
ZC22	76019404	CHIP BLOCK, 1/16W 10K OHM J, P-8
ZC23	76019404	CHIP BLOCK, 1/16W 10K OHM J, P-8
COILS & TRANSFORMERS		
L001	23103885	INDUCTOR, CHIP BEAD 3A 22OHM
L002	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
L003	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
L101	23248398	COIL, CHOKE, TLN3278D
L102	23103828	INDUCTOR, BEAD, TEM2121M
L103	23103828	INDUCTOR, BEAD, TEM2121M
L151	23103828	INDUCTOR, BEAD, TEM2121M
L152	23103828	INDUCTOR, BEAD, TEM2121M
L803	23103302	FERRITE CHOKE, TEM2011AH
L804	23103302	FERRITE CHOKE, TEM2011AH
L805	23103302	FERRITE CHOKE, TEM2011AH
L820	23103307	FERRITE CHOKE, TEM2014AA
L821	23103307	FERRITE CHOKE, TEM2014AA
L855	23103302	FERRITE CHOKE, TEM2011AH
L856	23103302	FERRITE CHOKE, TEM2011AH
L857	23103302	FERRITE CHOKE, TEM2011AH
L858	23103302	FERRITE CHOKE, TEM2011AH
L859	23103302	FERRITE CHOKE, TEM2011AH
L860	23103302	FERRITE CHOKE, TEM2011AH
L861	23248442	COIL, CHOKE, TLN3515AH
L862	23248442	COIL, CHOKE, TLN3515AH
L864	23248442	COIL, CHOKE, TLN3515AH
L8920	23289996	COIL, PEAKING, TRF4220AF
L8921	23289996	COIL, PEAKING, TRF4220AF
L8930	23289996	COIL, PEAKING, TRF4220AF
L8931	23289996	COIL, PEAKING, TRF4220AF
L8960	23103828	INDUCTOR, BEAD, TEM2121M

Location No.	Parts No.	Description
L8961	23103828	INDUCTOR, BEAD, TEM2121M
LB19	23103828	INDUCTOR, BEAD, TEM2121M
LB51	23289972	COIL, PEAKING, TRF4100AC
LC02	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LC03	23103271	FILTER, EMI 2012 201OHM 0.35A TEM2033AD
LC04	23103271	FILTER, EMI 2012 201OHM 0.35A TEM2033AD
LC05	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LC06	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LE08	23103302	FERRITE CHOKE, TEM2011AH
LE30	23289979	COIL, PEAKING, TRF4100AZ
LE31	23246919	COIL, CHOKE 13X8H 33MMH M TLN3586AH
LE32	23246934	COIL, CHOKE 4.5X3.5H 1.0MMHM TLN3601AH
LE33	23103888	INDUCTOR, CHIP BEAD, TEM2131AM
LE34	23289979	COIL, PEAKING, TRF4100AZ
LE35	23246919	COIL, CHOKE 13X8H 33MMH M TLN3586AH
LE36	23246934	COIL, CHOKE 4.5X3.5H 1.0MMHM TLN3601AH
LE37	23103888	INDUCTOR, CHIP BEAD, TEM2131AM
LE38	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LE40	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LE59	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LE61	23103302	FERRITE CHOKE, TEM2011AH
LE64	23103302	FERRITE CHOKE, TEM2011AH
LE81	23103302	FERRITE CHOKE, TEM2011AH
LE82	23103302	FERRITE CHOKE, TEM2011AH
LE83	23103302	FERRITE CHOKE, TEM2011AH
LE84	23103302	FERRITE CHOKE, TEM2011AH
LE85	23248432	COIL, CHOKE, TLN3499AH
LE86	23248432	COIL, CHOKE, TLN3499AH
LE87	23248432	COIL, CHOKE, TLN3499AH
LE88	23248445	COIL, CHOKE, TLN3441AH
LE91	23103265	FILTER, CHIP BEAD INDUCTOR TEM2160AM
LE92	23103888	INDUCTOR, CHIP BEAD, TEM2131AM
LE93	23103888	INDUCTOR, CHIP BEAD, TEM2131AM
LE94	23103888	INDUCTOR, CHIP BEAD, TEM2131AM
LE95	23103888	INDUCTOR, CHIP BEAD, TEM2131AM
LF10	23103885	INDUCTOR, CHIP BEAD 3A 22OHM
LF11	23246911	COIL, CHOKE 13X8H 5.6MMH N TLN3578AH
LF13	23103885	INDUCTOR, CHIP BEAD 3A 22OHM
LF14	23248489	COIL, CHOKE COIL 1.5MMH 8A TLN3639AH
LF21	23246911	COIL, CHOKE 13X8H 5.6MMH N TLN3578AH
LF23	23103885	INDUCTOR, CHIP BEAD 3A 22OHM
LF24	23248489	COIL, CHOKE COIL 1.5MMH 8A TLN3639AH
LF30	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LF31	23246895	COIL, CHOKE 13X4.6H 33MMH M TLN3561AH
LF32	23246934	COIL, CHOKE 4.5X3.5H 1.0MMHM TLN3601AH
LF33	23103888	INDUCTOR, CHIP BEAD, TEM2131AM
LF90	23289983	COIL, PEAKING, TRF4101AZ
LF91	23289983	COIL, PEAKING, TRF4101AZ
LV02	23103314	COIL, FILTER, TEM2028AH
LV03	23103314	COIL, FILTER, TEM2028AH
LV13	23289022	COIL, PEAKING, TRF4100AT
LV17	23289022	COIL, PEAKING, TRF4100AT
LV20	23221156	COIL, PEAKING, TRF4560AJ
LV41	23289024	COIL, PEAKING, TRF4220AT
⚠ T801	23211839	COIL, LINE FILTER, TRF3209AH
⚠ T802	23211836	COIL, LINE FILTER, TRF3197AH
⚠ T862	23217780	TRANSFORMER, CONVERTER TPW3570AS
⚠ TE01	23211905	COIL, LINE FILTER 26X31H 11MH TRF3228AH
TE62	23217781	TRANSFORMER, CONVERTER TPW3571AS
GR605	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
SEMICONDUCTORS		
Q101	23205506	TRANSISTOR, 2SC4081 Q
Q161	23205506	TRANSISTOR, 2SC4081 Q
Q601	23085839	IC, TV SOUND OUT CPP 12PIN TA8216HQ(5)
Q612	23205346	TRANSISTOR, KTA2014Y/P
Q613	23205506	TRANSISTOR, 2SC4081 Q
Q661	23205424	TRANSISTOR, KTC2875B/P
Q662	23205424	TRANSISTOR, KTC2875B/P
Q663	23085575	IC, OP AMP, BA4558
Q664	23205325	TRANSISTOR, RN2404(F)
Q681	23205424	TRANSISTOR, KTC2875B/P
Q682	23205424	TRANSISTOR, KTC2875B/P
Q801	23135080	IC, STRZ4267
Q815	23205347	TRANSISTOR, KTC4075Y/P
Q846	23205347	TRANSISTOR, KTC4075Y/P
Q847	23205347	TRANSISTOR, KTC4075Y/P
Q848	23205347	TRANSISTOR, KTC4075Y/P
Q849	23205346	TRANSISTOR, KTA2014Y/P
Q850	23205347	TRANSISTOR, KTC4075Y/P
Q851	23205346	TRANSISTOR, KTA2014Y/P
⚠ Q862	23000823	IC, PHOTO COUPLER, TLP421F(GR)
⚠ Q866	23000823	IC, PHOTO COUPLER, TLP421F(GR)
Q870	23085389	IC, NJM431L
Q891	23085821	IC, ADJ REG. VO=1.5V-16.0V BA7810T-V5
Q892	23009998	IC, BA00JC5WT-V5
Q893	23009998	IC, BA00JC5WT-V5
Q894	23085869	IC, OPE AMP, TA75358PG(5)
Q8950	23205347	TRANSISTOR, KTC4075Y/P
Q8951	23205347	TRANSISTOR, KTC4075Y/P
Q8952	23205346	TRANSISTOR, KTA2014Y/P
Q8960	23205347	TRANSISTOR, KTC4075Y/P
Q8961	23205347	TRANSISTOR, KTC4075Y/P
QB51	23085527	IC, OPE AMP, M5218AP
QB52	23205499	TRANSISTOR, KTC3198 Y/P
QB53	23205497	TRANSISTOR, KTA1266 Y/P
QB80	23085600	IC, PST9129
QB81	23205446	TRANSISTOR, 2SC2412K, Q T146
QB84	23205446	TRANSISTOR, 2SC2412K, Q T146
QB501	23085951	IC, BLASTER IC S3C80F9BKZ-SO77
QB502	23205307	TRANSISTOR, 2SA562TM-Y(F)
QB504	23205506	TRANSISTOR, 2SC4081 Q
QB505	23205506	TRANSISTOR, 2SC4081 Q
QB508	23205307	TRANSISTOR, 2SA562TM-Y(F)
QB509	23205337	TRANSISTOR, 2SC2878-A(TEM)
QB510	23205317	TRANSISTOR, RN1204(F)
QB511	23205317	TRANSISTOR, RN1204(F)
QB512	23205337	TRANSISTOR, 2SC2878-A(TEM)
QB513	23205317	TRANSISTOR, RN1204(F)
QB514	23085507	IC, TC4S66F(F)
QB515	23085507	IC, TC4S66F(F)
QB516	23009976	IC, BH33FB1WG-TR
QB517	23205317	TRANSISTOR, RN1204(F)
QC01	23085879	IC, USB2224-NU-05
QC02	23085121	IC, TC7SH04FU(TE85L,F)
QC03	23205578	TRANSISTOR, RTQ035P02
QC04	23205578	TRANSISTOR, RTQ035P02
QC05	23205578	TRANSISTOR, RTQ035P02
QC06	23205578	TRANSISTOR, RTQ035P02
QC07	23085774	IC, REG PQ033EZ01ZPH
QE01	23135089	IC, HYBRID 650V STR-W6756
QE21	23205346	TRANSISTOR, KTA2014Y/P
QE22	23205347	TRANSISTOR, KTC4075Y/P
QE30	23085454	IC, PQ1CY1032Z
QE31	23205347	TRANSISTOR, KTC4075Y/P
QE32	23205347	TRANSISTOR, KTC4075Y/P
QE33	23085454	IC, PQ1CY1032Z
QE34	23205347	TRANSISTOR, KTC4075Y/P
QE35	23205347	TRANSISTOR, KTC4075Y/P
QE40	23000903	IC, REGULATOR ADJ TO252-5 BA00BC0WFP-E2
QE50	23000903	IC, REGULATOR ADJ TO252-5 BA00BC0WFP-E2
QE51	23205347	TRANSISTOR, KTC4075Y/P
QE52	23205347	TRANSISTOR, KTC4075Y/P
QE53	23000903	IC, REGULATOR ADJ TO252-5 BA00BC0WFP-E2
QE54	23205347	TRANSISTOR, KTC4075Y/P
QE55	23205347	TRANSISTOR, KTC4075Y/P
QE59	23085028	IC, BA90BC0FP-E2
⚠ QE62	23000823	IC, PHOTO COUPLER, TLP421F(GR)
QE81	23085389	IC, NJM431L
QE93	23205301	TRANSISTOR, 2SA1887(FA,F)
QE94	23205446	TRANSISTOR, 2SC2412K, Q T146
QE95	23205446	TRANSISTOR, 2SC2412K, Q T146
QE96	23205301	TRANSISTOR, 2SA1887(FA,F)
QE97	23205446	TRANSISTOR, 2SC2412K, Q T146
QE98	23085415	IC, BD4746G
QE99	23205347	TRANSISTOR, KTC4075Y/P
QF05	23085415	IC, BD4746G
QF10	23085807	IC, HTSSOP B20 CONTROL BD9851EFV-E2
QF12	23205582	TRANSISTOR, FET RSS090P03 RSS090P03TB
QF22	23205582	TRANSISTOR, FET RSS090P03 RSS090P03TB
QF30	23135095	IC, CHOPPER REG PQ1CX12H2ZPQ T
QS01	23009916	IC, MM1631AJBE

Location No.	Parts No.	Description
QS02	23205347	TRANSISTOR, KTC4075Y/P
QS05	23205347	TRANSISTOR, KTC4075Y/P
QS06	23205347	TRANSISTOR, KTC4075Y/P
QS07	23205424	TRANSISTOR, KTC2875B/P
QS08	23205424	TRANSISTOR, KTC2875B/P
QS09	23205325	TRANSISTOR, RN2404(F)
QV12	23085806	IC, 3 IN 1 OUT 75OHM DRIVER MM1228XFBE
QV13	23205346	TRANSISTOR, KTA2014Y/P
QV30	23085352	IC, M52055FP
QV43	23205346	TRANSISTOR, KTA2014Y/P
QV44	23205346	TRANSISTOR, KTA2014Y/P
QV200	23085393	IC, MM1502XN
D601	23357697	DIODE, 1SS133
D602	23357697	DIODE, 1SS133
D603	23357697	DIODE, 1SS133
D604	23357697	DIODE, 1SS133
D611	23357697	DIODE, 1SS133
D612	23357697	DIODE, 1SS133
D613	23357697	DIODE, 1SS133
D614	23357697	DIODE, 1SS133
D615	23357697	DIODE, 1SS133
D616	23357697	DIODE, 1SS133
D617	23357697	DIODE, 1SS133
D628	23357865	DIODE, ZENER, MTZJ12B
D801	23357712	DIODE, D5SB60, 4009 F05
D805	23357850	DIODE, ZENER, MTZJ9.1A
D806	23357893	DIODE, ZENER, MTZJ27C
D809	23357905	DIODE, ZENER, MTZJ36C
D810	23357893	DIODE, ZENER, MTZJ27C
D811	23357511	DIODE, AG01A
D812	23357852	DIODE, ZENER, MTZJ9.1C
D813	23357512	DIODE, AL01Z
D815	23357748	DIODE, ZENER, MA8062-M
D840	23357703	DIODE, 1SS355
D841	23357703	DIODE, 1SS355
D842	23357748	DIODE, ZENER, MA8062-M
D843	23362216	DIODE, CHIP VRM=80V IO=50MA DAN202UT106
D855	23362233	DIODE, VRRM=40V IO=10A YG802C04RF119
D857	23362136	DIODE, YG801C04RF119
D859	23362210	DIODE, SCHOTTKY VRM90V 6A RB095T-90
D870	23357703	DIODE, 1SS355
⚠ D899	76019485	VARISTOR, TNR10V431K
D8950	23362216	DIODE, CHIP VRM=80V IO=50MA DAN202UT106
D8951	23357745	DIODE, ZENER, MA8056-M
D8960	23357506	DIODE, DAP202U
D8961	23357745	DIODE, ZENER, MA8056-M
DB51	23358616	PHOTO DIODE, PIN 900NM HPI-2FER4
DB52	23357697	DIODE, 1SS133
DB54	23357697	DIODE, 1SS133
DB55	23357697	DIODE, 1SS133
DB56	23357697	DIODE, 1SS133
DB81	23358619	LED, LAMP BLUE 21P1XEL SLA580BCT
DB82	23311148	LAMP, LAMP YELLOW SLI-580YT
DB501	23357697	DIODE, 1SS133
DB504	23357697	DIODE, 1SS133
DC01	23362231	DIODE, NNCD6.8MG-T1
DC02	23362231	DIODE, NNCD6.8MG-T1
DC03	23362231	DIODE, NNCD6.8MG-T1
DC04	23362231	DIODE, NNCD6.8MG-T1
DC05	23362194	DIODE, HIGH SPEED SWITCHING 1SS193(TE85L,F)
DE01	23357711	DIODE, D3SB60, 4109 F05
DE08	23357709	DIODE, RU1P
DE19	23357703	DIODE, 1SS355
DE30	23362215	DIODE, SCHOTTKY VRM45V 6A RB095B-40TL
DE31	23357739	DIODE, ZENER, MA8047-M
DE32	23362211	DIODE, SCHOTTKY VRM35V 6A RB095B-30TL
DE33	23357739	DIODE, ZENER, MA8047-M
DE62	23357900	DIODE, ZENER, MTZJ33B
DE63	23357892	DIODE, ZENER, MTZJ27B
DE64	23357366	DIODE, FR105-B5
DE66	23357842	DIODE, ZENER, MTZJ6.8B
DE71	23357697	DIODE, 1SS133
DE72	23357697	DIODE, 1SS133
DE81	23362208	DIODE, SCHOTTKY VRM45V 6A RB095T-40
DE82	23362209	DIODE, SCHOTTKY VRM60V 6A RB095T-60
DE83	23362210	DIODE, SCHOTTKY VRM90V 6A RB095T-90

Location No.	Parts No.	Description
DE84	23357366	DIODE, FR105-B5
DE91	23357874	DIODE, ZENER, MTZJ16B
DE92	23357874	DIODE, ZENER, MTZJ16B
DE98	23357703	DIODE, 1SS355
DE99	23357703	DIODE, 1SS355
DF10	23362211	DIODE, SCHOTTKY VRM35V 6A RB095B-30TL
DF11	23362054	DIODE, RB521S-30
DF12	23362230	DIODE, ZENER VZ=4.7-5.2 PMDS PTZ4.7B TE25
DF20	23362211	DIODE, SCHOTTKY VRM35V 6A RB095B-30TL
DF21	23362054	DIODE, RB521S-30
DF22	23362230	DIODE, ZENER VZ=4.7-5.2 PMDS PTZ4.7B TE25
DF30	23362214	DIODE, SCHOTTKY VRM30 IO3.0 RSX301L-30 TE25
DF31	23357703	DIODE, 1SS355
DF32	23357739	DIODE, ZENER, MA8047-M
DV161	23357854	DIODE, ZENER, MTZJ10B
DV162	23357854	DIODE, ZENER, MTZJ10B
DV163	23357854	DIODE, ZENER, MTZJ10B
DV164	23357854	DIODE, ZENER, MTZJ10B
DV165	23357854	DIODE, ZENER, MTZJ10B
DV166	23357854	DIODE, ZENER, MTZJ10B
KB01	23000852	IC,REMOCON RECEIVER, PIC-37043TE2
MISCELLANEOUS		
A306	23717198	SCREW, THUMB SCREW RETAINER
A512	23717192	SCREW, AV BOARD
A513	23717192	SCREW, AV BOARD
A621	23717192	SCREW, AV BOARD
A622	23717192	SCREW, AV BOARD
B230	23738088	SCREW, BTBW3X12ECO
B231	23738088	SCREW, BTBW3X12ECO
B233	23738088	SCREW, BTBW3X12ECO
B235	23738088	SCREW, BTBW3X12ECO
B237	23845859	HOLDER, WIRE, PVC-C0AT, L=70MM
B244	23738088	SCREW, BTBW3X12ECO
B245	23845859	HOLDER, WIRE, PVC-C0AT, L=70MM
B898	23165495	TERMINAL, EARTH PHI3 MET31-0332
B899	23165495	TERMINAL, EARTH PHI3 MET31-0332
BB01A	23713974	CONNECTOR, BB 100P PLUG 1-5175473-0
BB02A	23713974	CONNECTOR, BB 100P PLUG 1-5175473-0
BB20	23713014	PLUG, B-B 16P 1.5
BB21	23713013	SOCKET, B-B 16P 1.5
BB30	23713014	PLUG, B-B 16P 1.5
BB31	23713013	SOCKET, B-B 16P 1.5
BB41	23713822	SOCKET, B-B 2MM 56P
BB42	23713801	PLUG, B-B 56P 2MM
D855B	23717241	SCREW, BITTB3X8ECO
D857B	23717241	SCREW, BITTB3X8ECO
D859B	23717241	SCREW, BITTB3X8ECO
DE81B	23717241	SCREW, BITTB3X8ECO
DE82B	23717241	SCREW, BITTB3X8ECO
DE83B	23717241	SCREW, BITTB3X8ECO
⚠ F801	23144319	FUSE, CARTRIDGE, 125V 8A, 5.2X20
F801A	23165433	FUSE HOLDER, 5.2
⚠ F820	23144378	FUSE, RADIAL LEAD SUB-MINIATUR 250V 2A
⚠ F855	23144715	FUSE, CARTRIDGE 5.2X20, 125V 5A
⚠ F857	23144715	FUSE, CARTRIDGE 5.2X20, 125V 5A
⚠ F859	23144714	FUSE, AXIAL 125V 4.0A
⚠ F899	23144326	FUSE, CARTRIDGE, 250V 2A, 5.2X20
F899A	23165433	FUSE HOLDER, 5.2
⚠ FE01	23144710	FUSE, CARTRIDGE 5.2X20, 125V 2A
⚠ FE30	23144709	FUSE, AXIAL 125V 1.5A
⚠ FE31	23144709	FUSE, AXIAL 125V 1.5A
⚠ FE32	23144709	FUSE, AXIAL 125V 1.5A
⚠ FE33	23144710	FUSE, CARTRIDGE 5.2X20, 125V 2A
⚠ FE81	23144714	FUSE, AXIAL 125V 4.0A
⚠ FE82	23144714	FUSE, AXIAL 125V 4.0A
⚠ FE83	23144714	FUSE, AXIAL 125V 4.0A
⚠ FE84	23144707	FUSE, AXIAL 125V 630MA
⚠ FF34	23144709	FUSE, AXIAL 125V 1.5A
H003	23344525	SWITCH, 2I3O BUNPAI US DIG RSU143
M601C #1	23103840	FERRITE CORE, TFE1013
#3	23103840	FERRITE CORE, TFE1013
M811A #1	23103778	FERRITE CORE, TFE1008
#3	23103778	FERRITE CORE, TFE1008
M811B #1	23103778	FERRITE CORE, TFE1008
#3	23103778	FERRITE CORE, TFE1008

Location No.		Parts No.	Description
M902A	#1	23103840	FERRITE CORE, TFE1013
	#3	23103840	FERRITE CORE, TFE1013
M906A	#1	23103778	FERRITE CORE, TFE1008
	#3	23103778	FERRITE CORE, TFE1008
M906B	#1	23103778	FERRITE CORE, TFE1008
	#3	23103778	FERRITE CORE, TFE1008
MB91A	#1	23103839	FERRITE CORE, TFE1012
	#3	23103839	FERRITE CORE, TFE1012
MC01A	#1	23103840	FERRITE CORE, TFE1013
	#3	23103840	FERRITE CORE, TFE1013
MC01E	#1	23103840	FERRITE CORE, TFE1013
	#3	23103840	FERRITE CORE, TFE1013
MJ22		23389360	FFC, P0.5-50P-L80(GOLD)
MJ60		23389360	FFC, P0.5-50P-L80(GOLD)
MT201		23368929	CABLE, PHONO 2C-VV 240MM C4-0769ALI
MT202		23368929	CABLE, PHONO 2C-VV 240MM C4-0769ALI
MV01A	#1	23103839	FERRITE CORE, TFE1012
	#3	23103839	FERRITE CORE, TFE1012
⚠ P800		23713702	PLUG, 2P 11.88MM W VT
⚠ P801		23372117	POWER CORD, U/C 125V10A HSV 5 CMC-02P 5
P801A	#1	23103840	FERRITE CORE, TFE1013
	#3	23103840	FERRITE CORE, TFE1013
P805		23164965	PLUG, 4P, W-P3504-#02
P811A		23713713	PLUG, 2P 3.96MM VH
P891		23713761	PLUG, NP 2.5MM G, B10B-EH-F1A
P892		23713763	PLUG, NP 2.5MM G, B12B-EH-F1A
P901		23713754	PLUG, 3P 2.5MM G, B3B-EH-F1-TV4
P902A		23164563	PLUG, 3P
P903		23713755	PLUG, 4P 2.5MM G, B4B-EH-F1-TV4
P905		23713756	PLUG, 5P 2.5MM G, B5B-EH-F1-TV4
PB22		23713756	PLUG, 5P 2.5MM G, B5B-EH-F1-TV4
PB60		23367070	PLUG, 10P 2.5MM G, JST-EH B10B-EH-F1A
PB80A		23713976	CONNECTOR, BB 26P SOCKET 2-917362-6
PB80B		23713975	CONNECTOR, BB 26P PLUG 2-917360-6
PB92		23713755	PLUG, 4P 2.5MM G, B4B-EH-F1-TV4
PB501		23023218	JACK, FHI3.5 2P STERE SMK LGA6502-0101
PB504		23713756	PLUG, 5P 2.5MM G, B5B-EH-F1-TV4
PB505		23713755	PLUG, 4P 2.5MM G, B4B-EH-F1-TV4
PC01		23713622	CONNECTOR, 2MM 5P SMD B5B-PH-SM4-TBT
PC02		23903251	SOCKET, CFH050-C7-1180
PC02A		23903257	SOCKET, CFHEJT-90-0000
PC03		23903250	SOCKET, CLE9042-0101F
PJ22A		23757180	CONNECTOR, FH12-50S-0.5SV(55)
PJ60A		23757180	CONNECTOR, FH12-50S-0.5SV(55)
PV01		23023094	JACK, PIN 1S6P SMK LAP5120-0205FC
PV02		23365949	JACK, 5P, 1E:OFF+2R:OFF+2L:OFF, JALC @U104
		23023184	JACK, 1S3P, LAP5100-1502F @UV04
PV03		23365949	JACK, 5P, 1E:OFF+2R:OFF+2L:OFF, JALC
PV04		23365920	JACK, 1E:OFF+2R:OFF+2L:OFF JALC JACK 5P
PV05		23023439	JACK, PIN 4/4P JALCO YKC21-4672N
PV60		23713761	PLUG, NP 2.5MM G, B10B-EH-F1A
PZ01		23713951	CONNECTOR, CONNECT S9B-PH-K-S(LF)
Q601B		23717241	SCREW, BITTB3X8ECO
Q891B		23717241	SCREW, BITTB3X8ECO
⚠ S810		23344522	SWITCH, SPVF11
SA1		23344507	SWITCH, PUSH, SKHHLMA010
SA2		23344507	SWITCH, PUSH, SKHHLMA010
SA3		23344507	SWITCH, PUSH, SKHHLMA010
SA4		23344507	SWITCH, PUSH, SKHHLMA010
SA5		23344507	SWITCH, PUSH, SKHHLMA010
SA6		23344507	SWITCH, PUSH, SKHHLMA010
SA7		23344507	SWITCH, PUSH, SKHHLMA010
SA8		23344507	SWITCH, PUSH, SKHHLMA010
⚠ SR81		23146590	RELAY, DLS5D1-O(M)0.25W
⚠ SR82		23146584	RELAY, DC12V, TV5, DG-3
⚠ UF02		23125950	DC FAN, 2806KL-04W-B39-B01
W661A	#1	23351333	SPEAKER, 120X120 8-OHM 20W SPK-1479AO
	#2	23351334	SPEAKER, 120X120 16-OHM 10W SPK-1480AO
	#3	23351334	SPEAKER, 120X120 16-OHM 10W SPK-1480AO
W661B	#2	23351334	SPEAKER, 120X120 16-OHM 10W SPK-1480AO
	#3	23351334	SPEAKER, 120X120 16-OHM 10W SPK-1480AO
W662A	#1	23351333	SPEAKER, 120X120 8-OHM 20W SPK-1479AO
	#2	23351334	SPEAKER, 120X120 16-OHM 10W SPK-1480AO
	#3	23351334	SPEAKER, 120X120 16-OHM 10W SPK-1480AO
W662B	#2	23351334	SPEAKER, 120X120 16-OHM 10W SPK-1480AO
	#3	23351334	SPEAKER, 120X120 16-OHM 10W SPK-1480AO

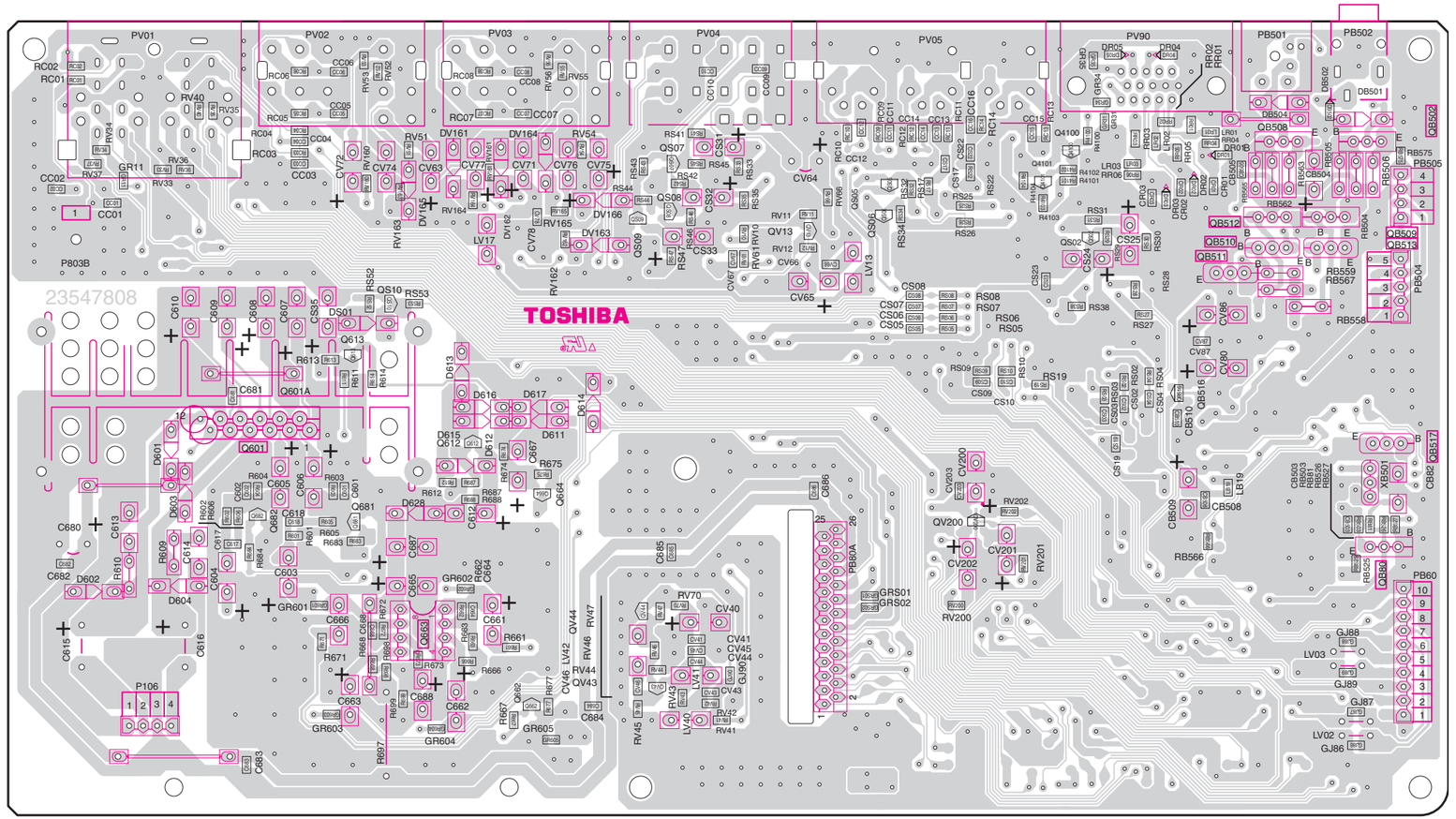
Location No.		Parts No.	Description
XB501		23153504	CERAMIC RESONATOR, 8.00MHZ 25OHM
XC01		23153589	CRYSTAL RESONATOR, XTAL 12MHZ
PC BOARD ASSEMBLIES			
✻ U102		23764394	PC BOARD ASSY, MOTHER PU PD2140B
✻ U104		23764260	PC BOARD ASSY, BACK AV PU PD2141A-1
✻ U105		23764261	PC BOARD ASSY, IR BLASTER PU PD2141A-2
✻ U107		23764265	PC BOARD ASSY, TUNER-RF PU PD2147A
✻ U801		23764388	PC BOARD ASSY, MAIN POWER PU PD2139B-1
✻ U802		23764389	PC BOARD ASSY, SUB POWER PU PD2139B-2
✻ UA03		23764390	PC BOARD ASSY, DOOR SW PU PD2139B-3
✻ UA06		23764392	PC BOARD ASSY, FRONT KEY PU PD2139B-5
✻ UA07		23764393	PC BOARD ASSY, LED PU PD2139B-6
✻ UC01		23764254	PC BOARD ASY, MULTI CARD PU PD2142A
✻ UD01		23148444	MODULE, SIGNAL DSB-SUM070C1
✻ UD02		23148435	MODULE, SEINE DSB-SHU154A-
✻ UV04		23764391	PC BOARD ASSY, FRONT AV PU PD2139B-4
TUNER			
⚠ H001		23321536	TUNER, TIF US HOR IIC PH 864M ENG36A36GF
ACCESSORIES			
A701	#1	23015123	CARTON
	#2	23015081	CARTON
	#3	23015126	CARTON
A703	#1	23580013	PACKING, TOP PACKING
	#2	23946999	PACKING, TOP PACKING
	#3	23580015	PACKING, TOP PACKING
A708	#1	23580012	PACKING, BOTTOM PACKING
	#2	23946998	PACKING, BOTTOM PACKING
	#3	23580014	PACKING, BOTTOM PACKING
A709	#2	23015080	CARTON, BASE TRAY
A710	#1	23946774	PACKING, SUPPORT POST
	#2	23918406	CARTON, SUPPORT POST
	#3	23946775	PACKING, SUPPORT POST
⚠ K912		23306627	REMOCON HAND UNIT, CT-90233
K913		23306614	REMOCON HAND UNIT, 57H93
⚠ Y101		23566691	OWNERS MANUAL, ENGLISH/FRE
Y101F	#1	23566692	OWNERS MANUAL, FRENCH
Y102		23589650	SHEET, IMPORTANT NOTES
CABINET PARTS			
⚠ A025		23940403	PIECE, 05 LAMP TUNNEL ASSY
⚠ A026		23940409	PIECE, 05 LAMP DOOR ASSY
⚠ A100		23533624	COVER, BASE, PURCHASE ASSY
⚠ A102	#1	23527387	GRILLE, SPK GRILL ASY LEFT
⚠	#2	23527388	GRILLE, SPK GRILL ASY LEFT
⚠	#3	23527389	GRILLE, SPK GRILL ASY LEFT
⚠ A103	#1	23527378	GRILLE, SPEAKER GRILL ASY RT
⚠	#2	23527381	GRILLE, SPEAKER GRILL ASY
⚠	#3	23527384	GRILLE, SPEAKER GRILL ASY RT
A184		23469392	INSULATOR, 05_LENS_GASKET
⚠ A201	#1	23533445	COVER, BEZEL ASM
⚠	#2	23533440	COVER, BEZEL ASM
⚠	#3	23533447	COVER, BEZEL ASM
A202	#1	23433352	DECORATIVE, BEZEL DECO ASM
	#2	23533442	COVER, BEZEL DECO ASM
	#3	23433354	DECORATIVE, BEZEL DECO ASM
A220		23451976	PUSH CATCH, CLICK
A225		23940084	PIECE, STRIKER
A226		23940084	PIECE, STRIKER
⚠ A271	#1	23405480	OPTICAL ENGINE, LV-682 TB 0C
⚠	#2	23405481	OPTICAL ENGINE, LV-682 TB 0D
⚠	#3	23405482	OPTICAL ENGINE, LV-682 TB 0E
A333		23450868	PANEL, AV MOUNT ASY
A402		23533434	COVER, REAR COVER PURCHASE
⚠ A411	#1	23429384	CABINET, BACK COVER
⚠	#2	23533305	COVER, BACK COVER PROPER
A421	#1	23533969	COVER, BACK COVER ASSY
	#1	23533427	COVER, REAR
	#2	23533427	COVER, REAR
	#3	23533971	COVER, BACK COVER ASSY
	#3	23533427	COVER, REAR
A422		23084862	BRACKET, REAR VENT
E998Z		23311153	EXCHANGE LAMP, PJ-D95-LMP
K501	#1	23311151	SCREEN, 56K5NL SCREEN56K5NL

Location No.		Parts No.	Description
	#2	23311149	SCREEN, 62K5N LENTICULAR SHEET SCREEN62K5NL
	#3	23311144	SCREEN, 72K5M LENTICULAR SHEET SCREEN72K5ML
K502	#1	23311157	SCREEN, 56K5NF SCREEN56K5NF
	#2	23311158	SCREEN, 62K5NF SCREEN62K5NF
	#3	23311145	SCREEN, 72K5M FRESNEL SHEET SCREEN72K5MF
K601	#1	23405488	MIRROR, 56G5M3 MIRROR56G5M3
	#2	23405489	MIRROR, 62G5M5 MIRROR62G5M5
	#3	23405490	MIRROR, 72G5M5 MIRROR72G5M5
SK01		23587525	SERVICE KIT, LAMP FAN
SK02		23587526	SERVICE KIT, DMD FAN
SK03		23587527	SERVICE KIT, BALLAST FAN
SK04		23587528	SERVICE KIT, THERMOSTAT
SK06		23587536	SERVICE KIT, B TO F CABLE
SK08		23587538	SERVICE KIT, S TO F CABLE
SK09		23587539	SERVICE KIT, FAN TRANSFER CABLE

Location No.	Parts No.	Description

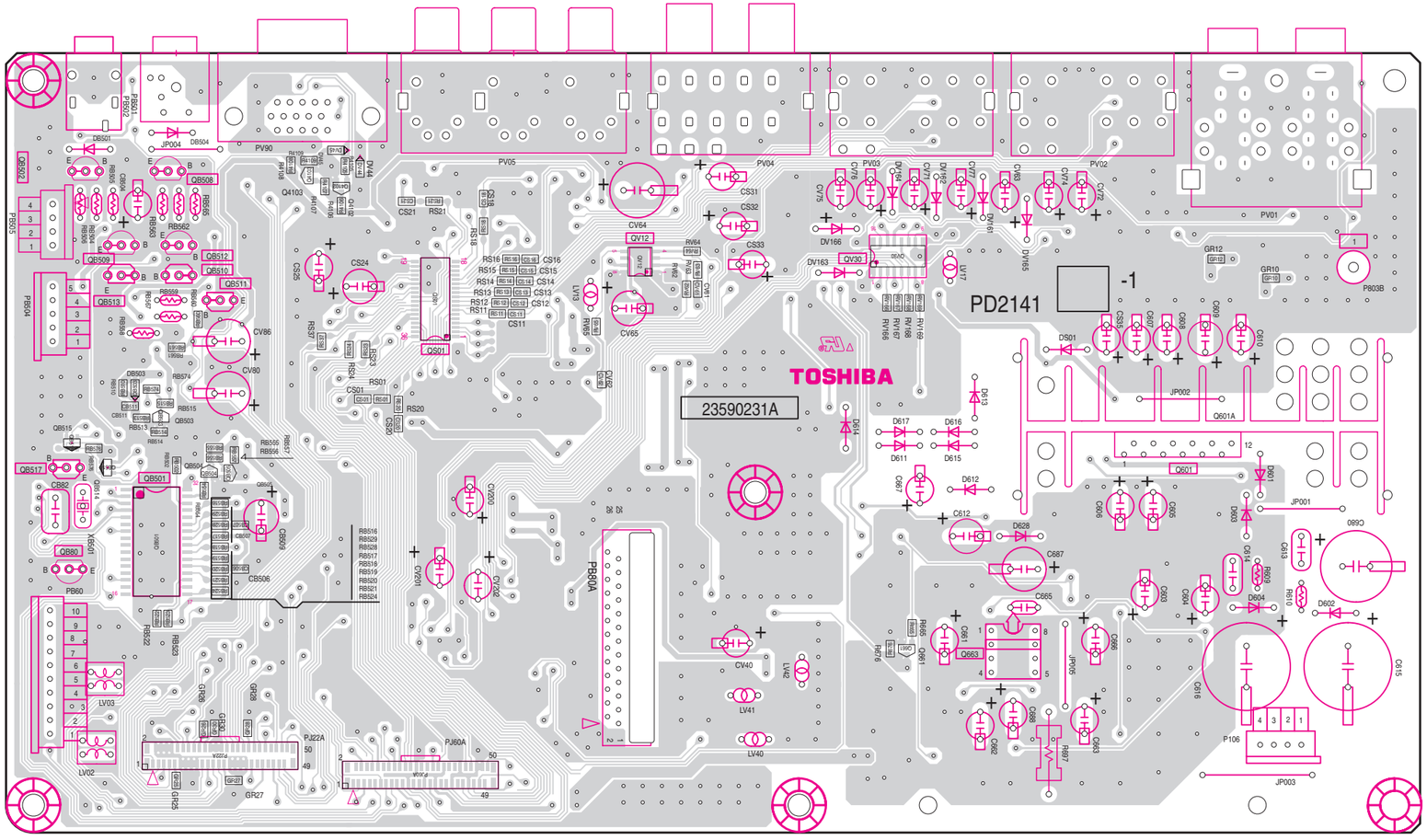
BACK AV BOARD PD2141A-1 (U104)

BOTTOM (FOIL) SIDE



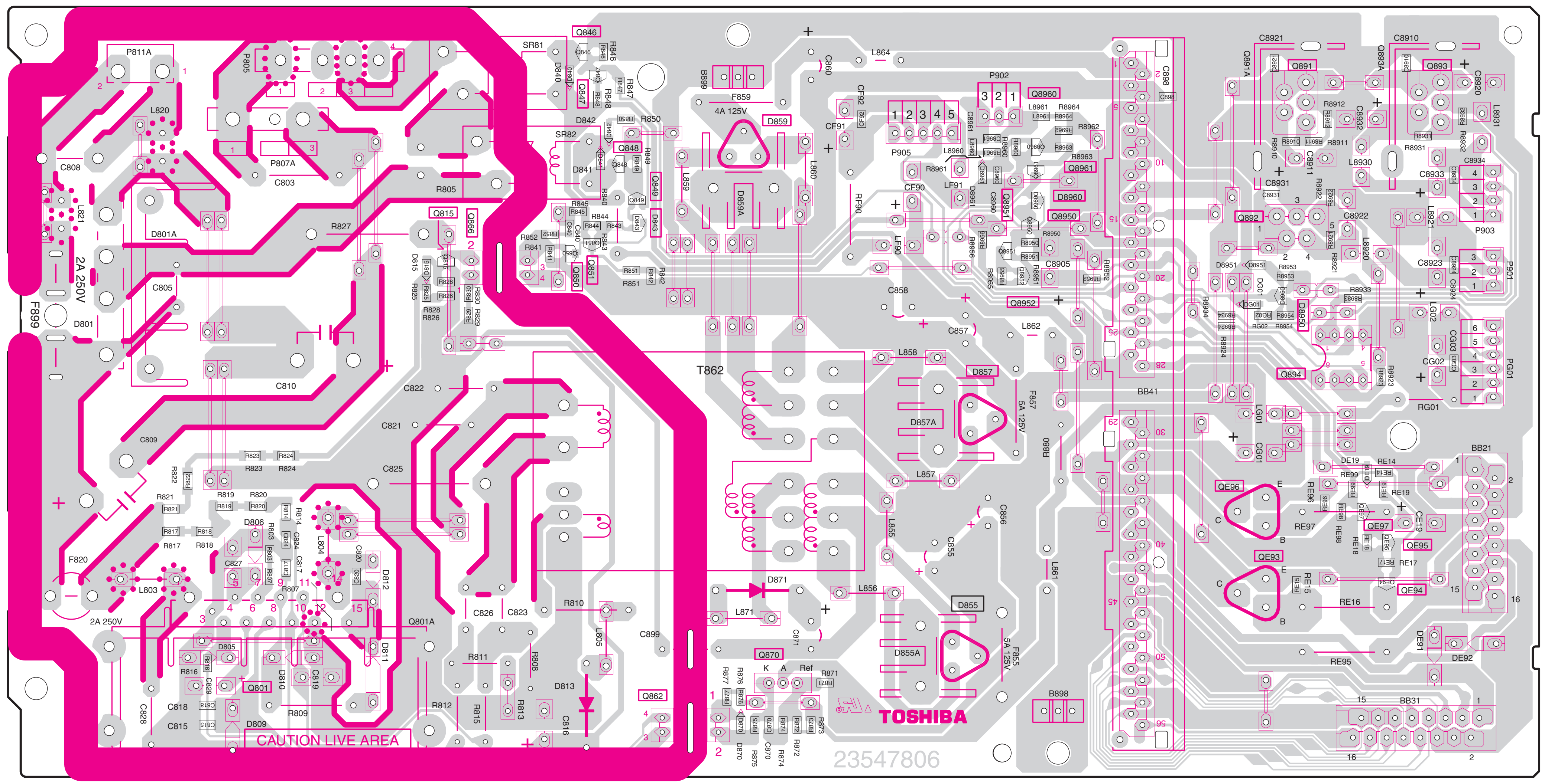
BACK AV BOARD PD2141A-1 (U104)

TOP (COMPONENT) SIDE



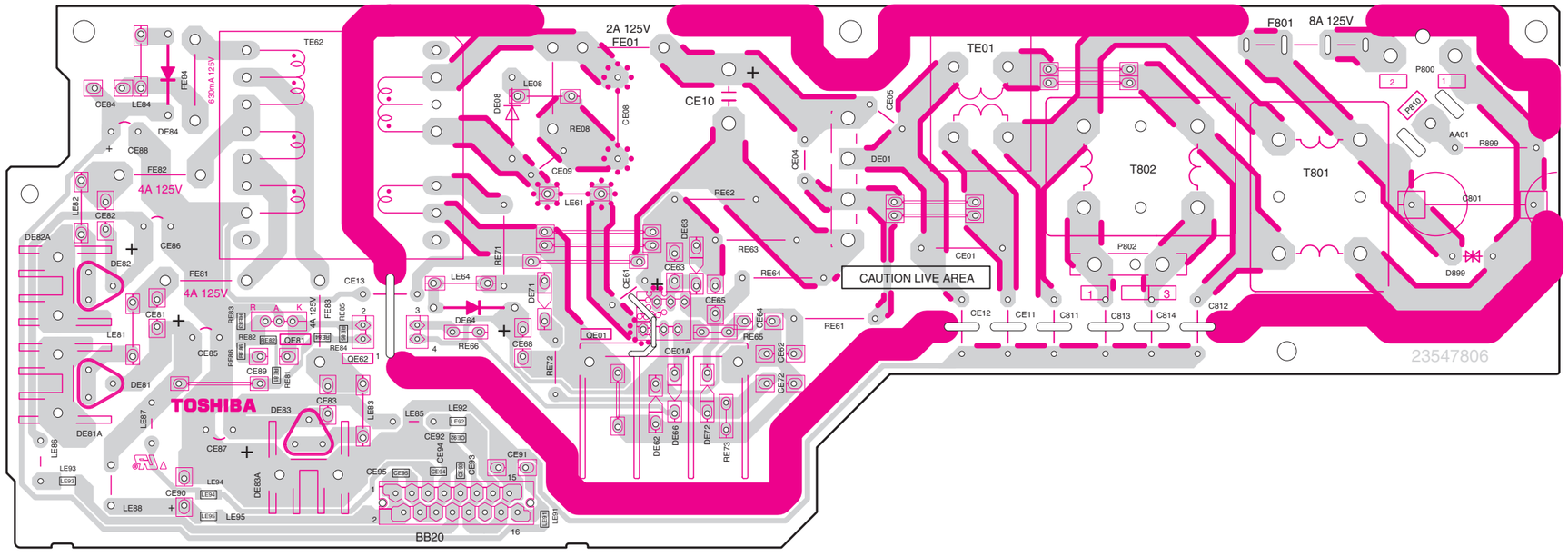
MAIN POWER BOARD PD2139B-1 (U801)

BOTTOM (FOIL) SIDE



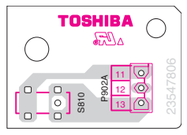
SUB POWER BOARD PD2139B-2 (U802)

BOTTOM (FOIL) SIDE



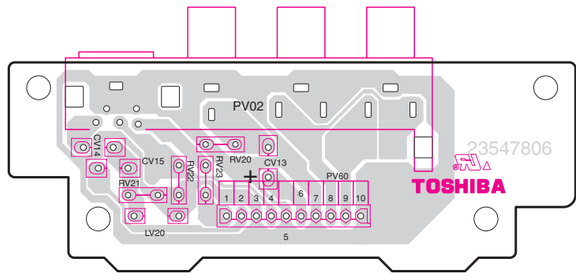
DOOR SW BOARD PD2139B-3 (UA03)

BOTTOM (FOIL) SIDE



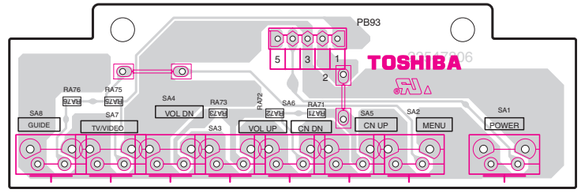
FRONT AV BOARD PD2139B-4 (UV04)

BOTTOM (FOIL) SIDE



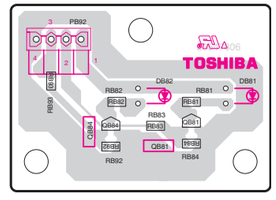
FRONT KEY BOARD PD2139B-5 (UA06)

BOTTOM (FOIL) SIDE



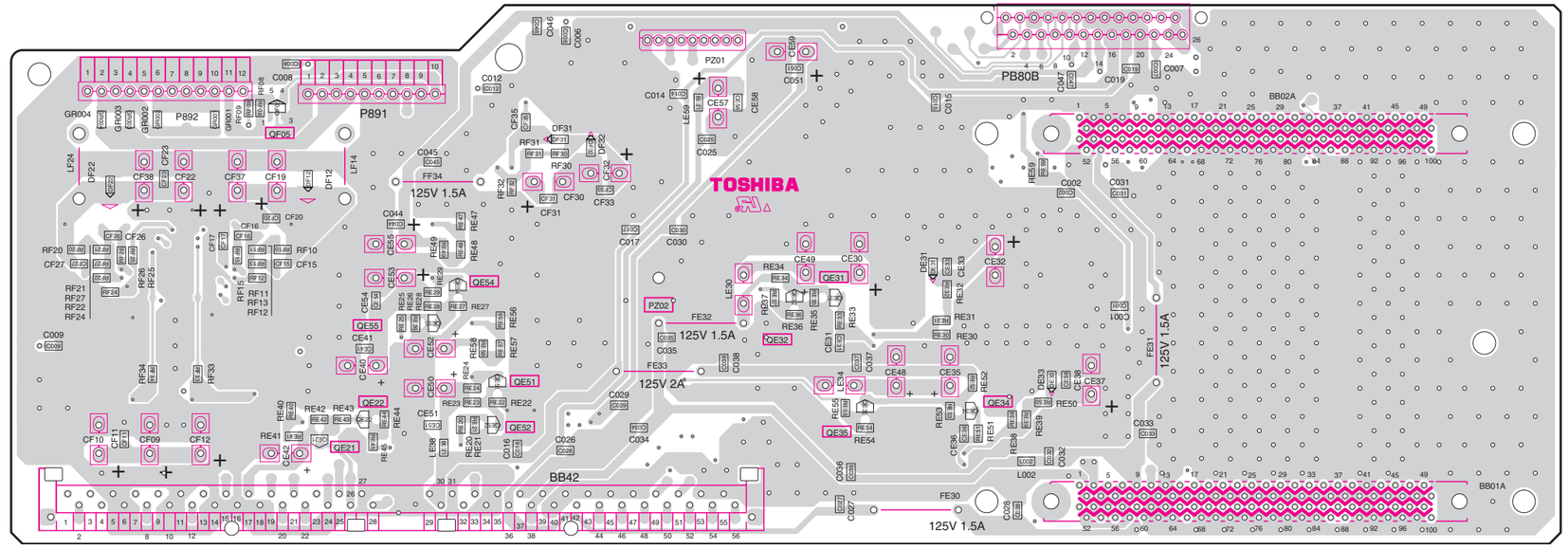
LED BOARD PD2139B-6 (UA07)

BOTTOM (FOIL) SIDE



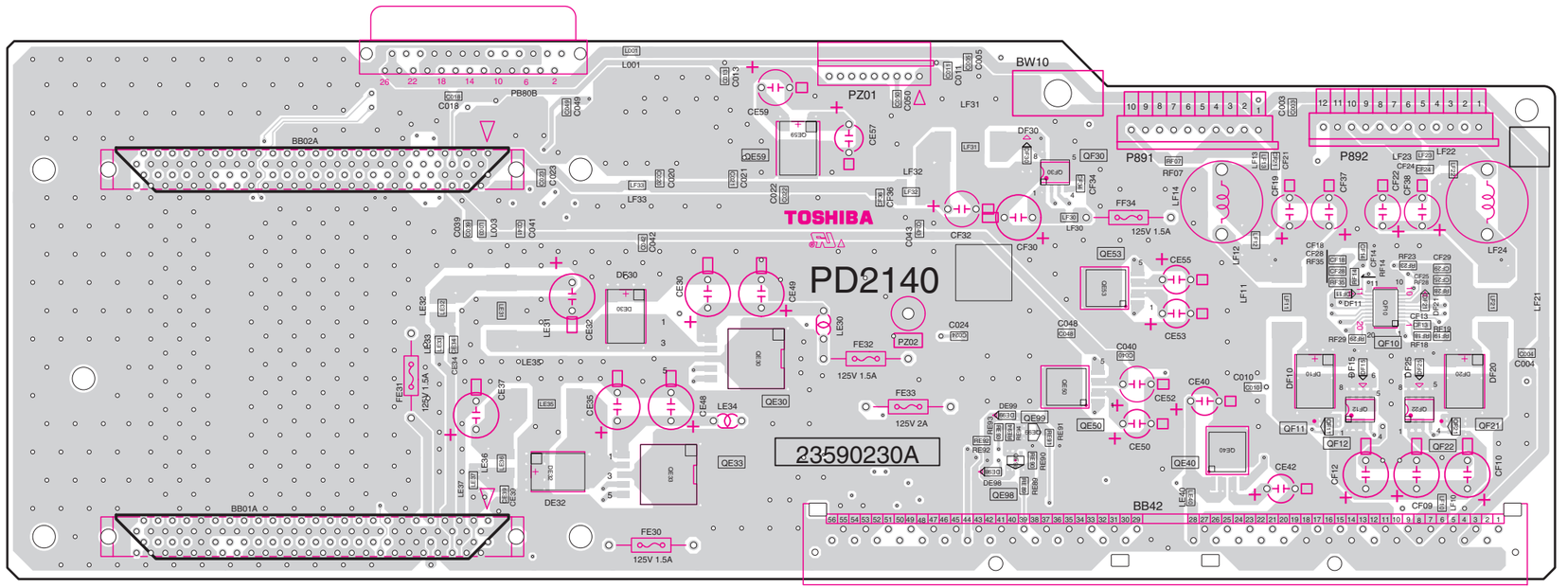
MOTHER BOARD PD2140B (U102)

BOTTOM (FOIL) SIDE



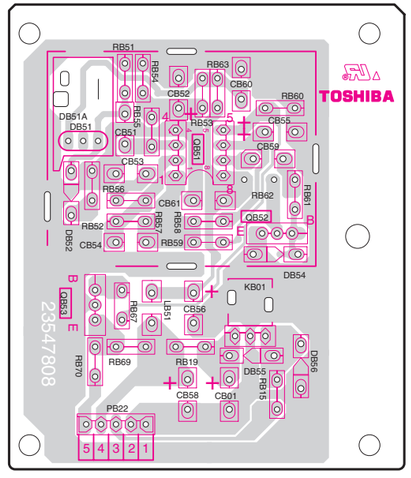
MOTHER BOARD PD2140B (U102)

TOP (COMPONENT) SIDE



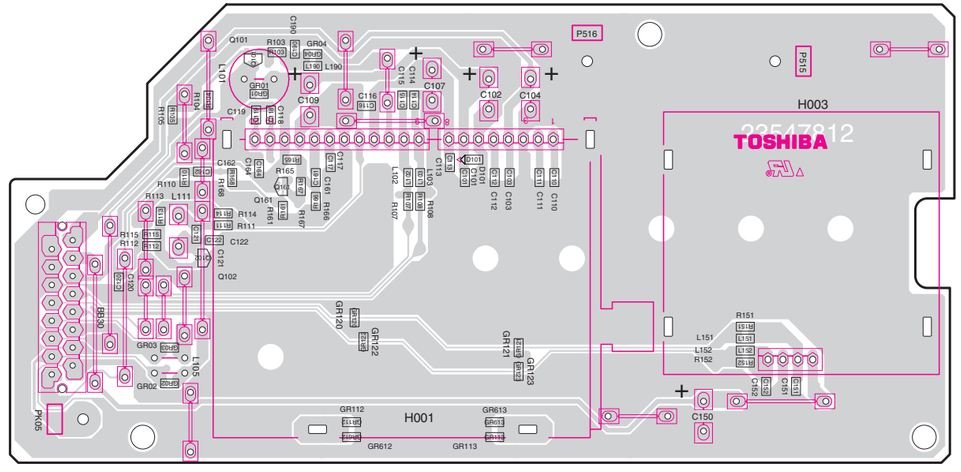
IR BLASTER BOARD PD2141A-2 (U105)

BOTTOM (FOIL) SIDE



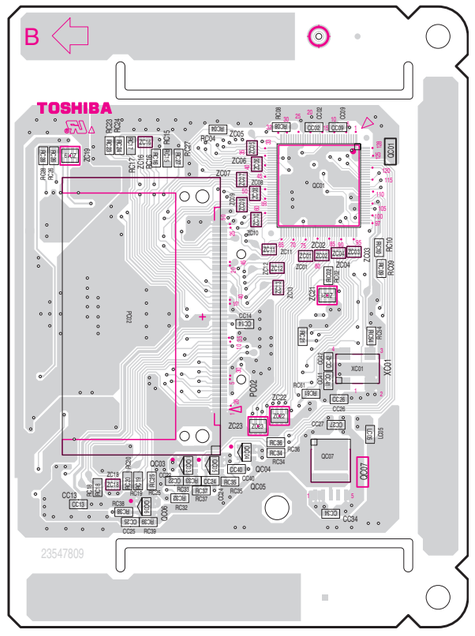
TUNER-RF BOARD PD2147A (U107)

BOTTOM (FOIL) SIDE



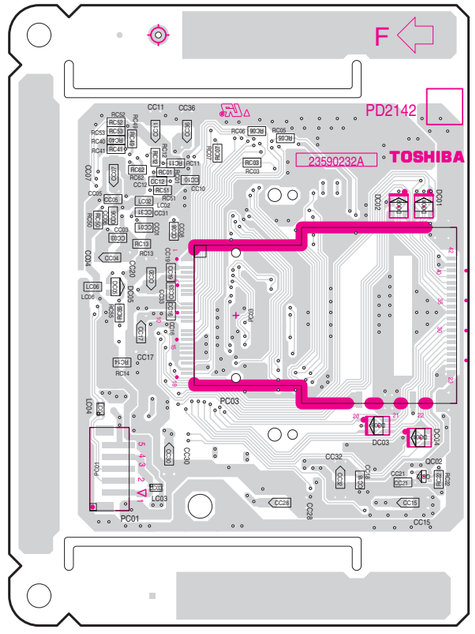
MULT CARD BOARD PD2142A (UC01)

BOTTOM (FOIL) SIDE



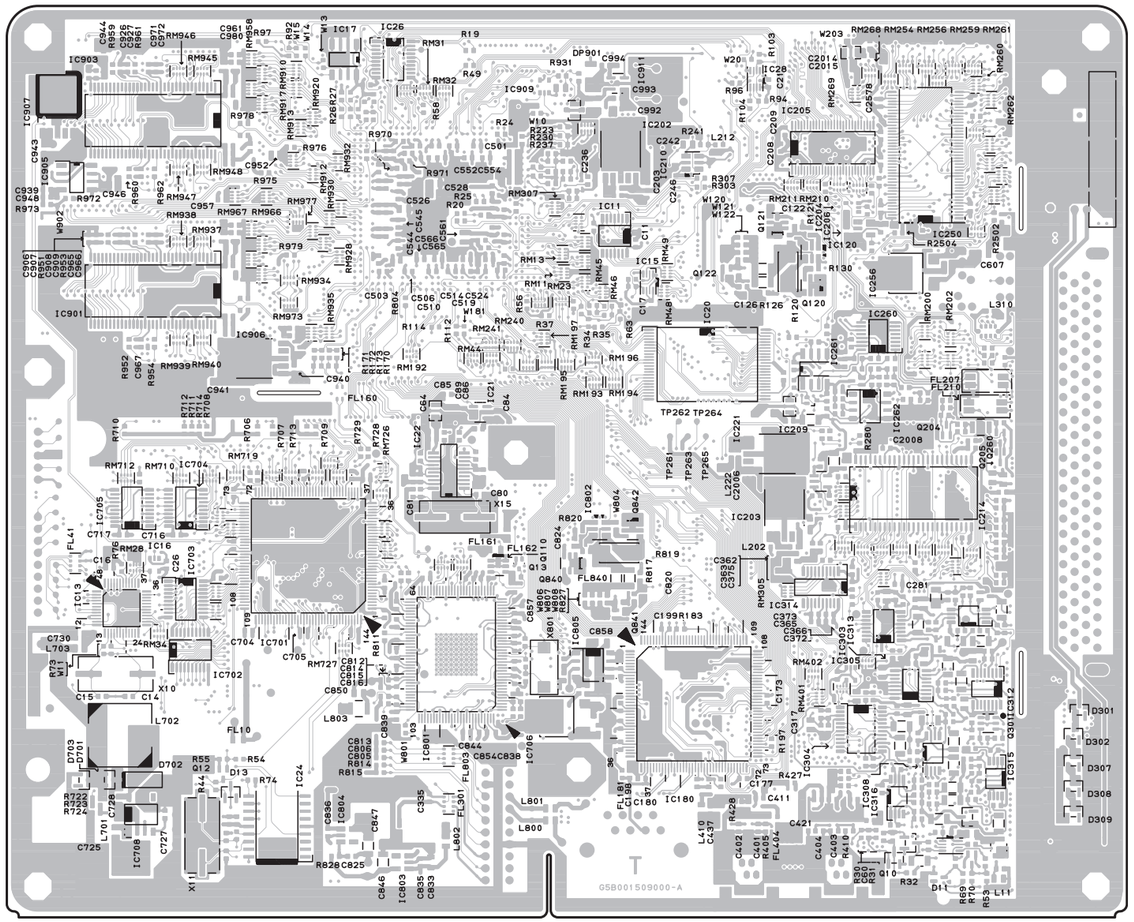
MULT CARD BOARD PD2142A (UC01)

TOP (COMPONENT) SIDE



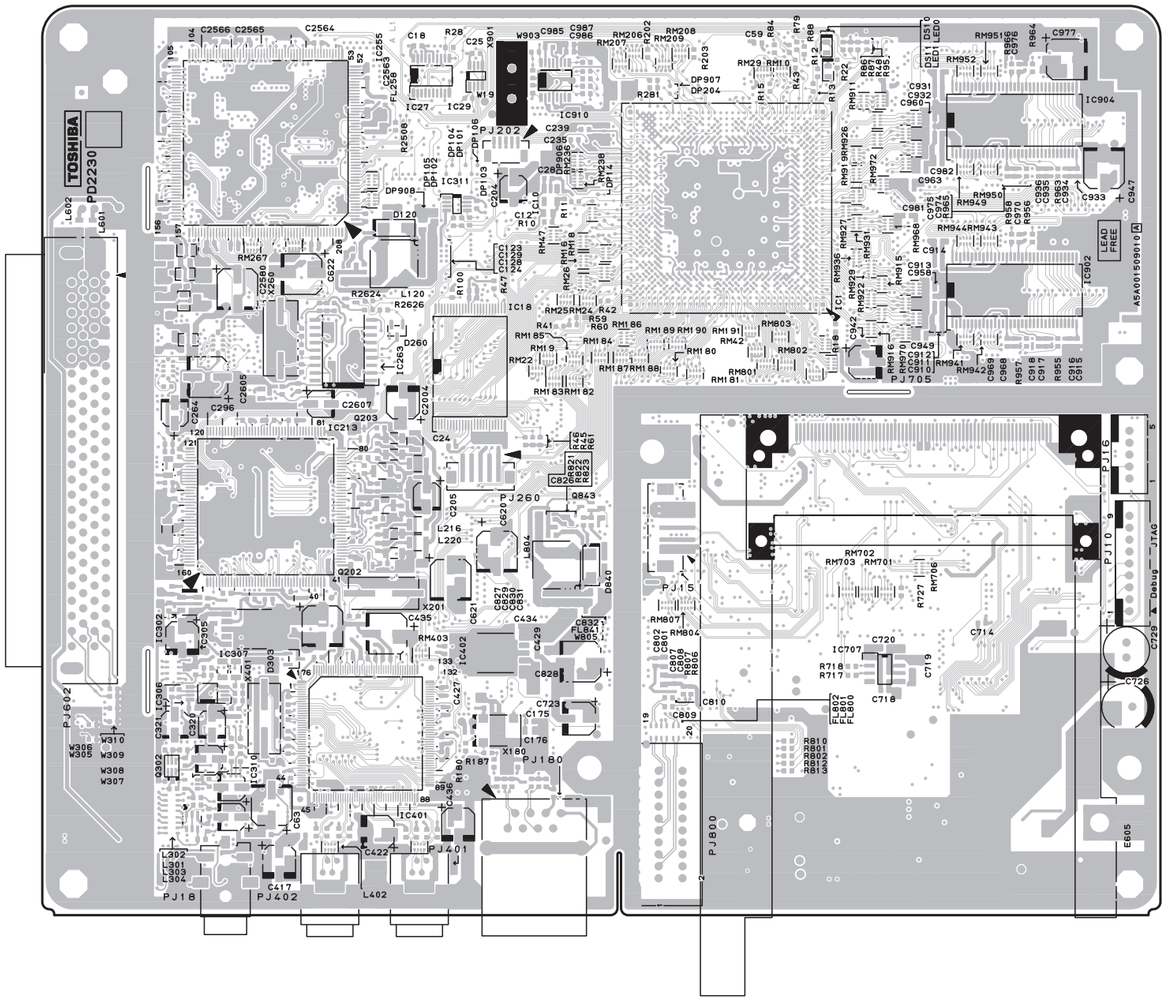
SEINE DIGITAL BOARD PD2230 (UD02)

BOTTOM (FOIL) SIDE



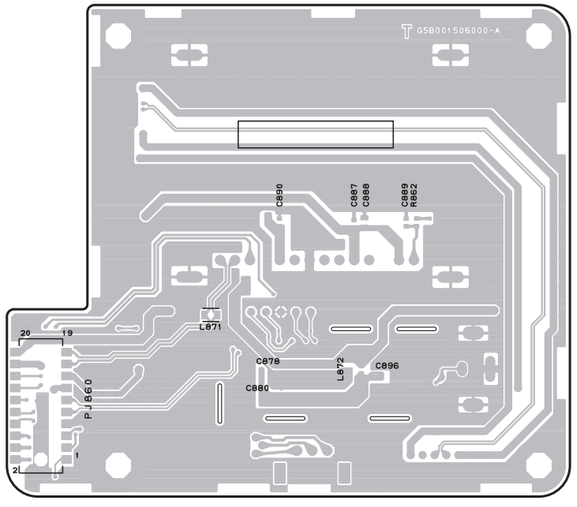
SEINE DIGITAL BOARD PD2230 (UD02)

TOP (COMPONENT) SIDE



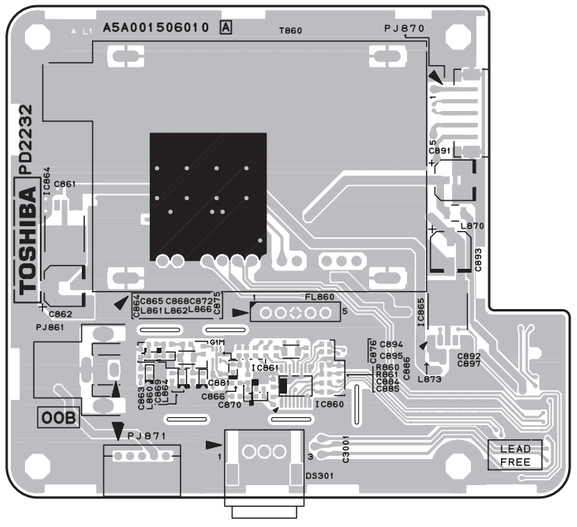
DIGITAL TUNER BOARD PD2232 (UD02)

BOTTOM (FOIL) SIDE



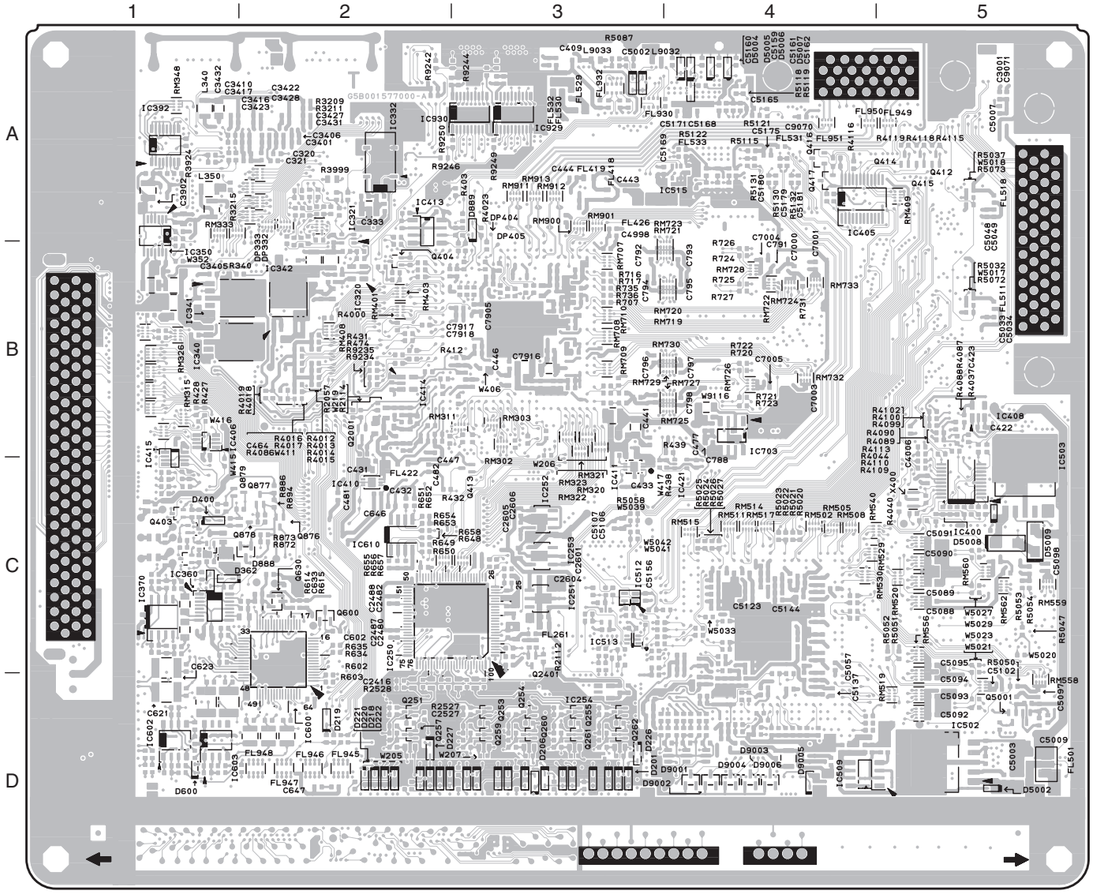
DIGITAL TUNER BOARD PD2232 (UD02)

TOP (COMPONENT) SIDE



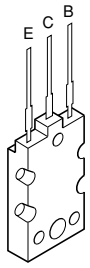
SIGNAL UNIT BOARD PD2299 (UD01)

BOTTOM (FOIL) SIDE

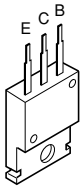


TERMINAL VIEW OF TRANSISTORS

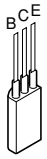
① 2SC5144
2SC5859



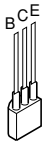
② 2SC3852
2SD1763A
2SC1569
2SC4544
2SA1788
2SA1306
2SA1186A



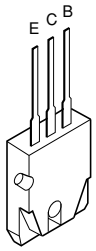
③ 2SC752GTM
2SC2482
2SC2655
2SC4721P



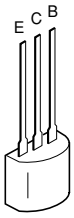
④ 2SC752
2SA562TM
2SA1015
2SC1815
2SC2878
2SC1740S
2SC2120
2SA9335



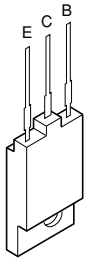
⑤ 2SA1788



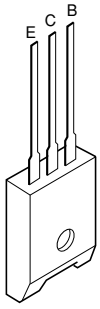
⑥ RN2203
RN2201
RN2004
RN1203
RN1204
RN2204
RN1205
RN1202
RN1201



⑦ 2SD1554
2SD2253
2SD1556
2SD2553
2SC5143



⑧ ON4409



SCHEMATIC DIAGRAM

MODEL : 56/62/72HM195

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

NOTE:

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt
   1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt
   10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in F, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
   Electolytic capacitor
   Mylar capacitor
3. The parts indicated with "⚠" have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage at 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

■ SCHEMATIC DIAGRAM STRUCTURE:

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- IR [SHEET-5/6] 5/146
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FRONT_KEY Circuit
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IR_BRASTER Circuit 10/146

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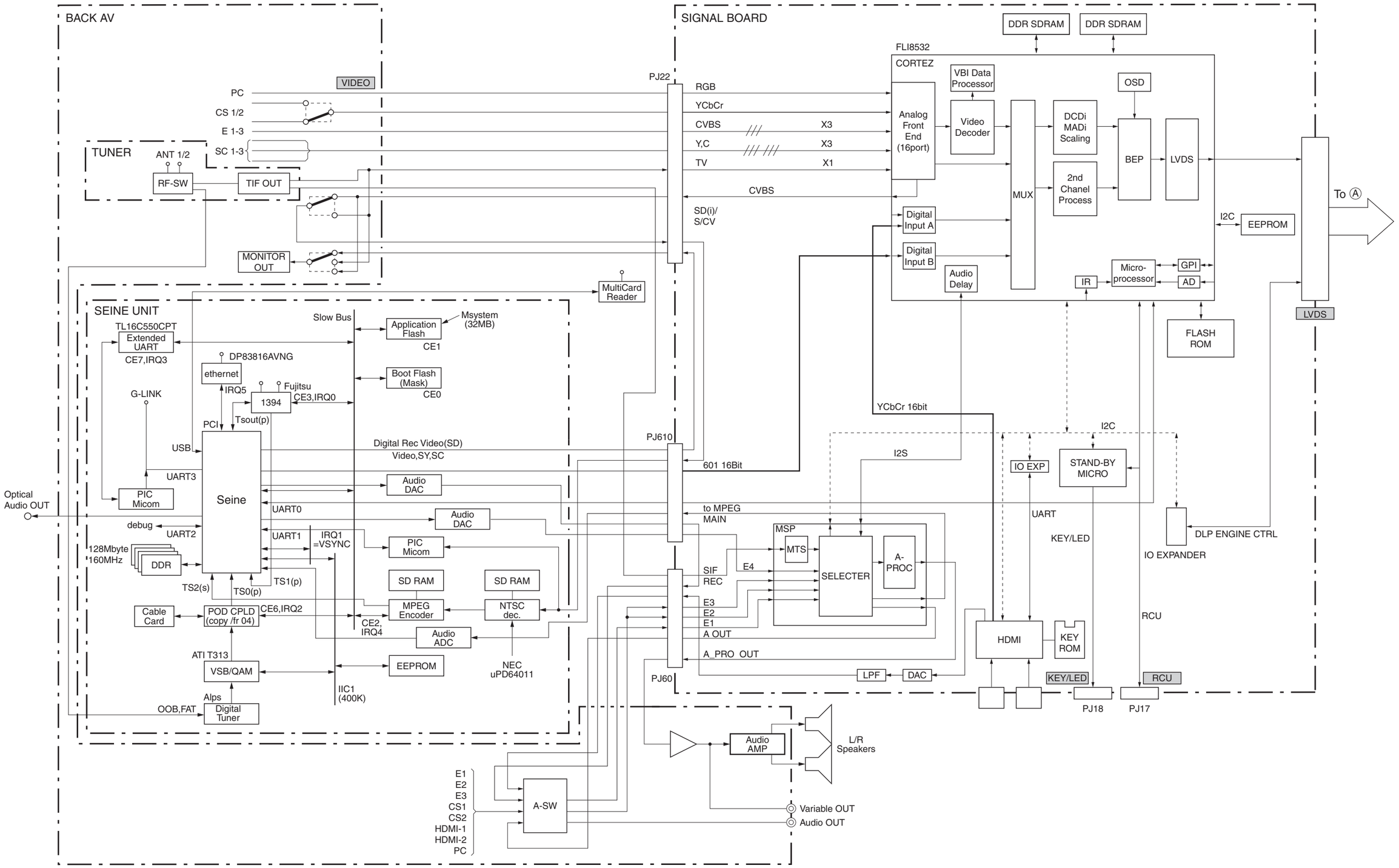
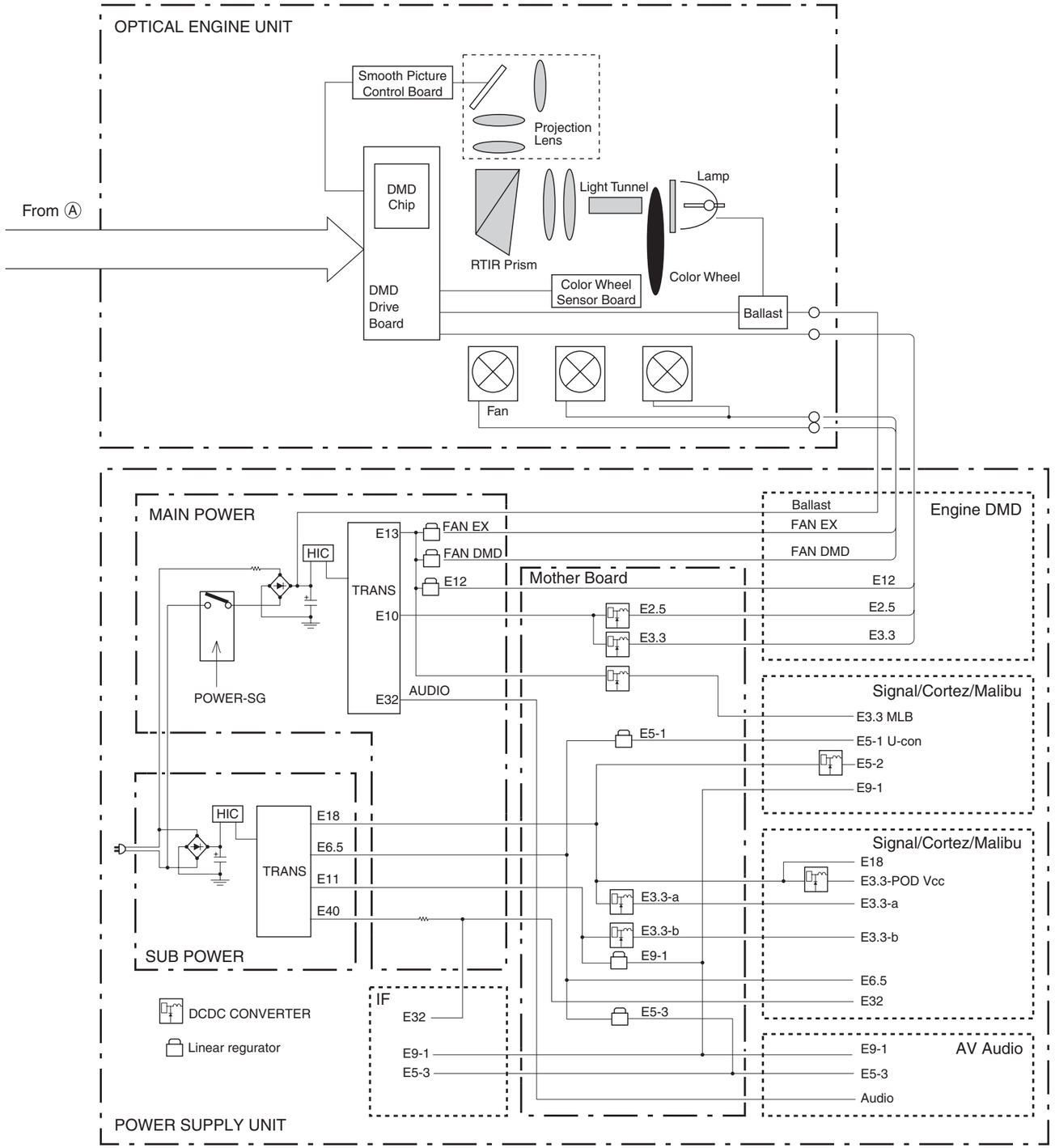
CIRCUIT BLOCK DIAGRAM




OPTICAL ENGINE UNIT
Smooth Picture Control Board
Projection Lens
DMD Chip
From Ⓐ
Light Tunnel
Lamp
RTIR Prism
Color Wheel
Color Wheel Sensor Board
DMD Drive Board
Ballast
Fan
MAIN POWER
HIC
E13
FAN EX
FAN DMD
E12
TRANS
E10
E32
AUDIO
POWER-SG
Mother Board
E2.5
E3.3
E5-1
E5-2
E9-1
E3.3-a
E3.3-b
E5-3
E6.5
E32
SUB POWER
HIC
E18
E6.5
E11
E40
TRANS
IF
E32
E9-1
E5-3
DCDC CONVERTER
Linear regurator
POWER SUPPLY UNIT
Engine DMD
Ballast
FAN EX
FAN DMD
E12
E2.5
E3.3
Signal/Cortez/Malibu
E3.3 MLB
E5-1 U-con
E5-2
E9-1
Signal/Cortez/Malibu
E18
E3.3-POD Vcc
E3.3-a
E3.3-b
E6.5
E32
AV Audio
E9-1
E5-3
Audio

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

SCHEMATIC DIAGRAM

MODEL : 56/62/72HM195

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

NOTE:

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt
   1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt
   10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in F, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
   Electolytic capacitor
   Mylar capacitor
3. The parts indicated with "⚠" have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage at 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

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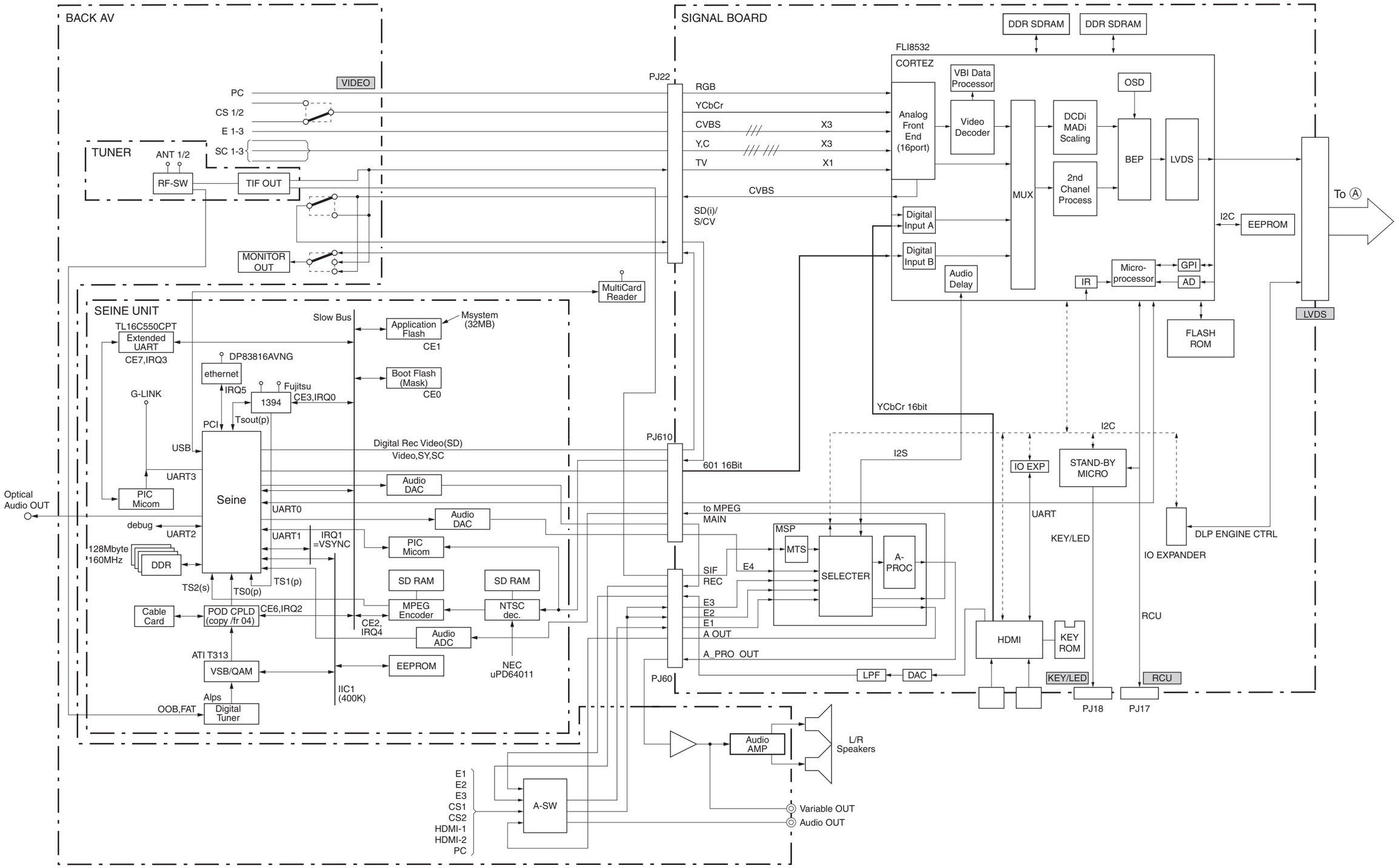
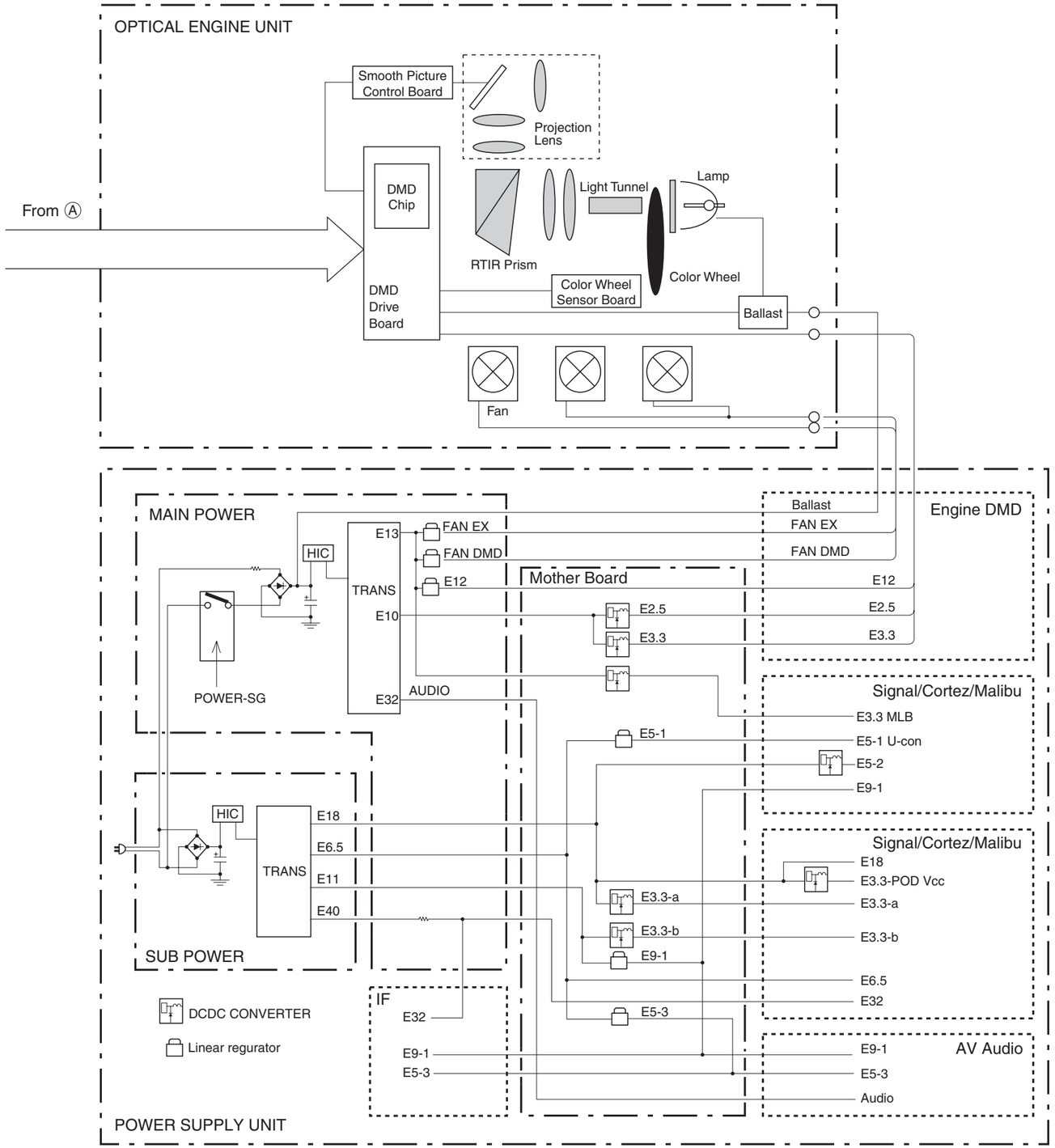
CIRCUIT BLOCK DIAGRAM




OPTICAL ENGINE UNIT
Smooth Picture Control Board
Projection Lens
From Ⓐ
DMD Chip
Light Tunnel
Lamp
RTIR Prism
Color Wheel
DMD Drive Board
Color Wheel Sensor Board
Ballast
Fan
MAIN POWER
HIC
E13
FAN EX
FAN DMD
E12
TRANS
E10
E32
AUDIO
POWER-SG
Mother Board
E2.5
E3.3
E5-1
E5-2
E9-1
E3.3-a
E3.3-b
E5-3
E6.5
E32
SUB POWER
HIC
E18
E6.5
E11
E40
TRANS
IF
E32
E9-1
E5-3
DCDC CONVERTER
Linear regurator
Engine DMD
Ballast
FAN EX
FAN DMD
E12
E2.5
E3.3
Signal/Cortez/Malibu
E3.3 MLB
E5-1 U-con
E5-2
E9-1
Signal/Cortez/Malibu
E18
E3.3-POD Vcc
E3.3-a
E3.3-b
E6.5
E32
AV Audio
E9-1
E5-3
Audio
POWER SUPPLY UNIT

TO SIGNAL BOARD

PJ22A
FFC_0.5mm_50P\FH12A-50S-0.5SV

PJ60A
FFC_0.5mm_50P\FH12A-50S-0.5SV

PB60
10P_2.5mm_1.5A_Beige

to FRONT (EXT-3)

PB80A
26P(AF)

to Mother Board

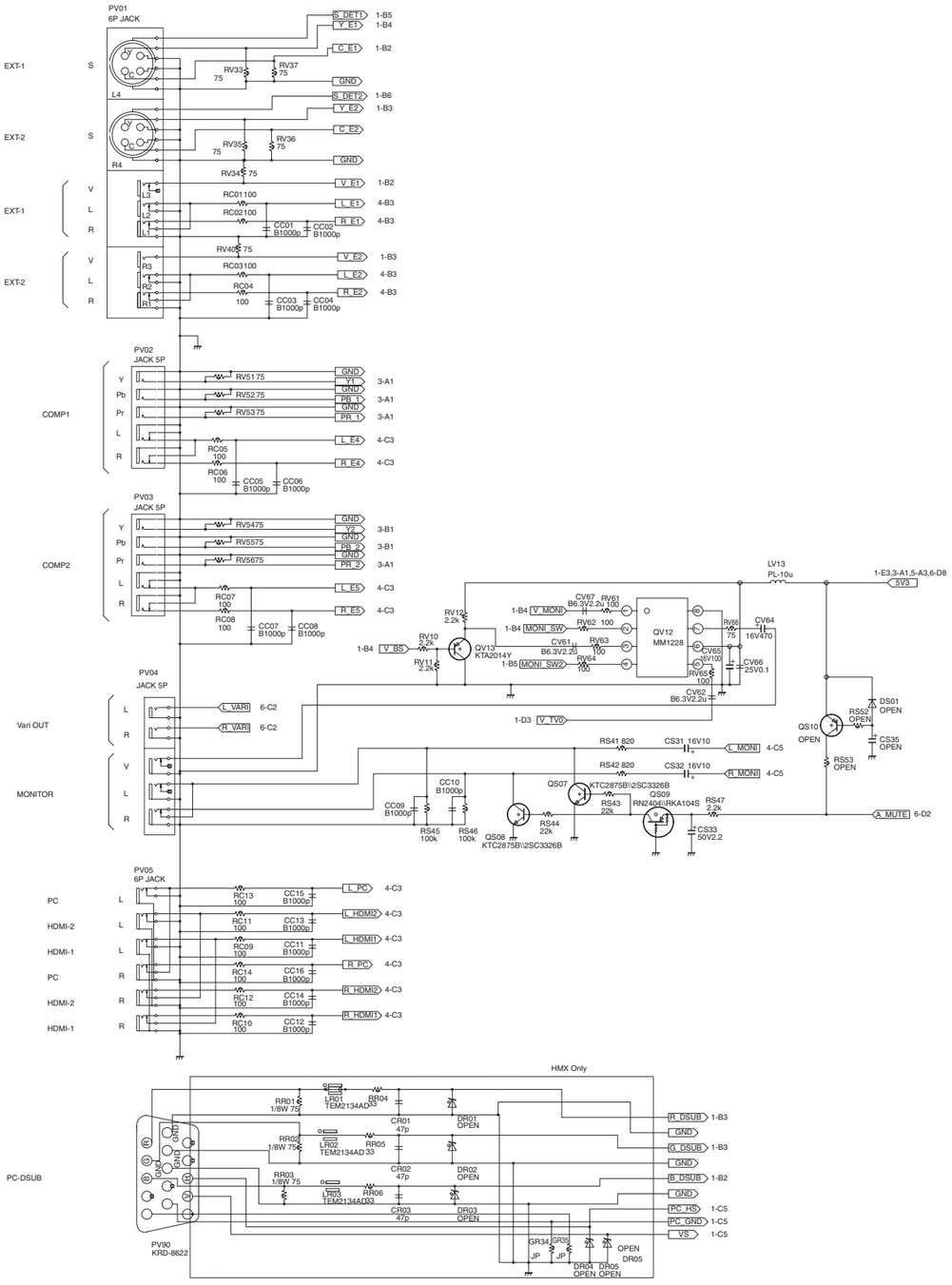
P803B
1P
TO IF BOARD
(TUNER GND)

MM1502XNRE
QV200

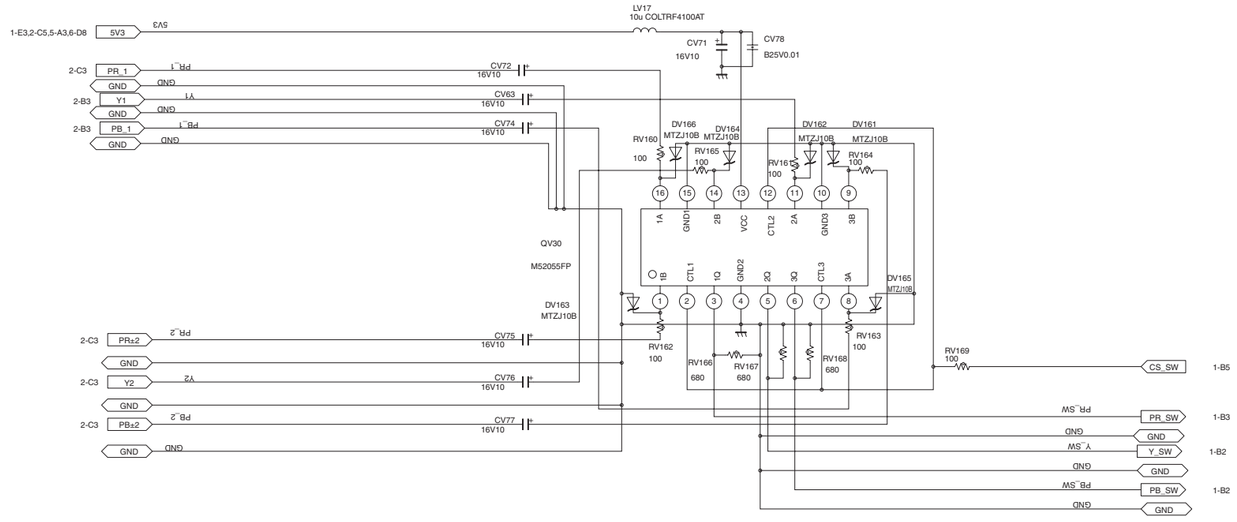
Q4100 2SC3437Y
Q4101 2SC3437Y
Q4102 2SC3437Y-L
Q4103 2SC3437Y

QV43 KTA2014Y
QV44 KETSU

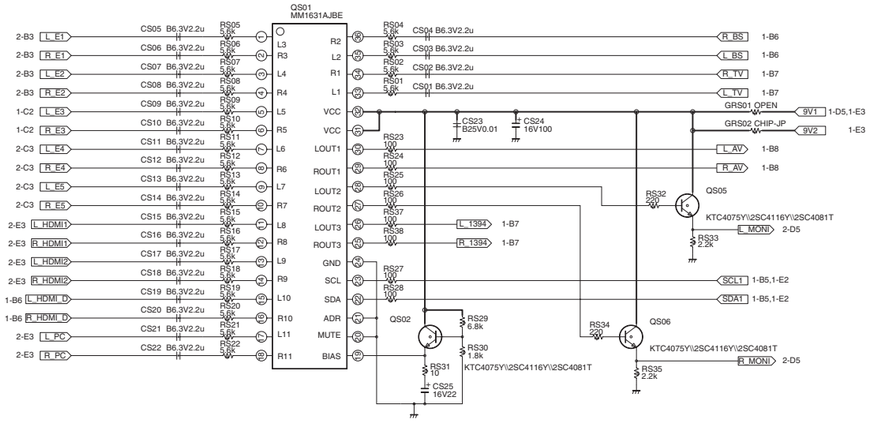
56/62/72HM195
BACK_AV (CONNECTORS)
SHEET-1/6



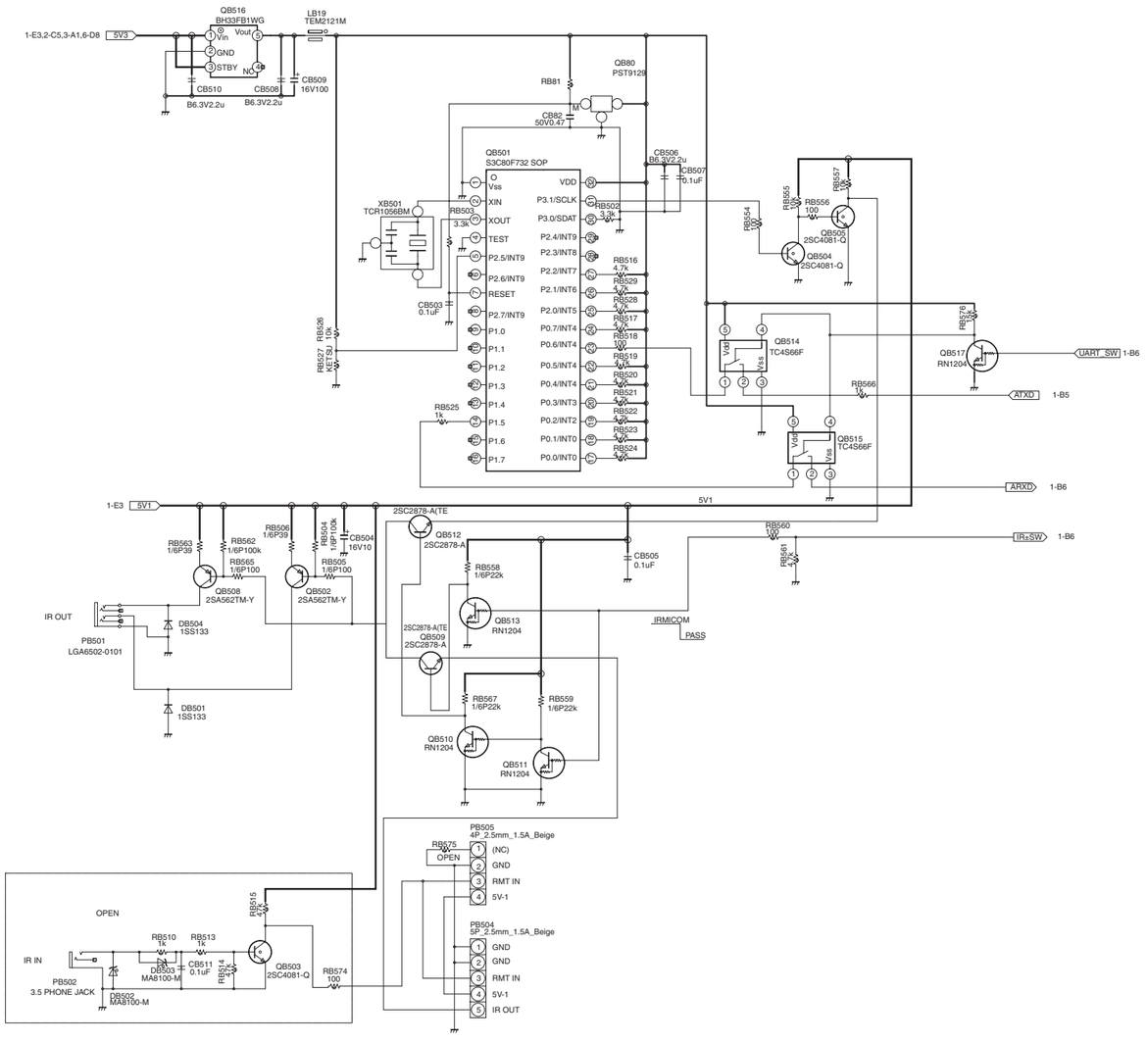
56/62/72HM195
BACK_AV (AV Jacks)
SHEET-2/6



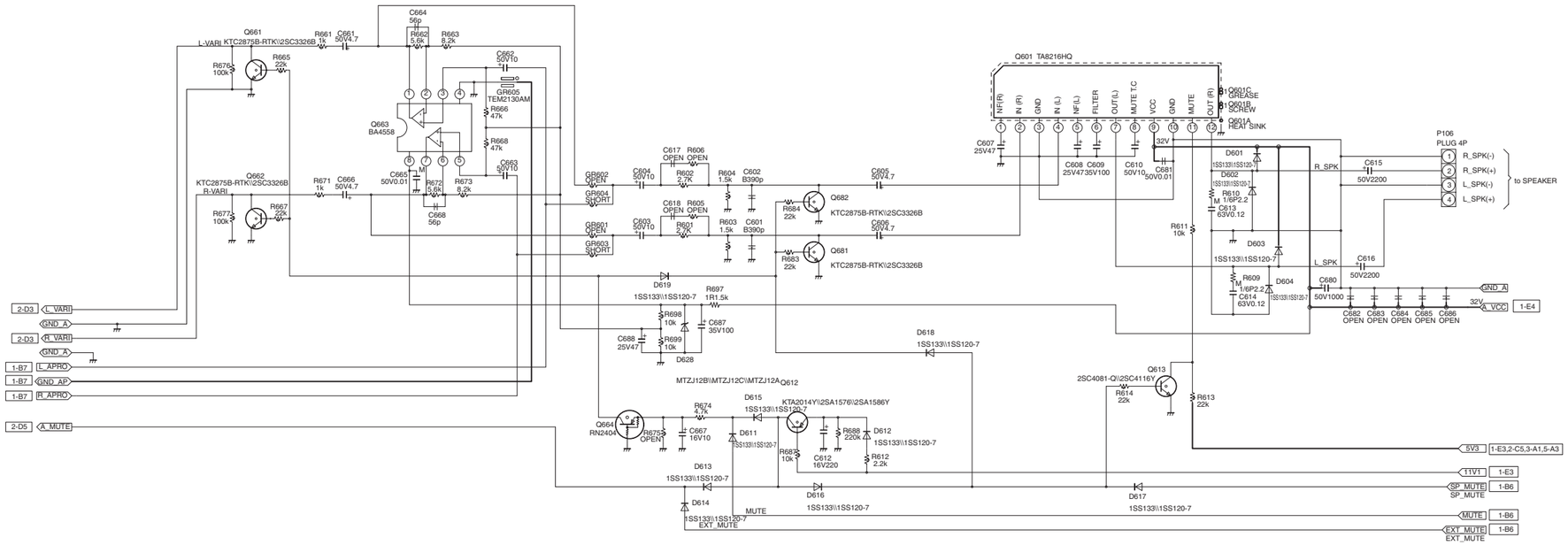
56/62/72HM195
BACK_AV (CS-SW)
SHEET-3/6



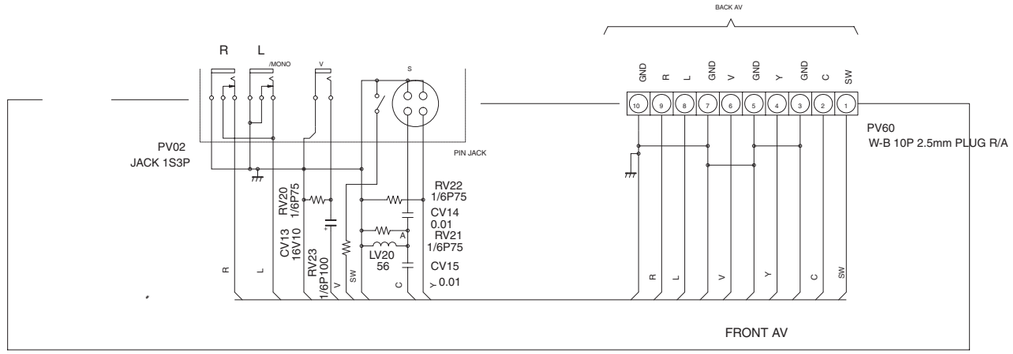
56/62/72HM195
BACK_AV (Audio Select)
SHEET-4/6

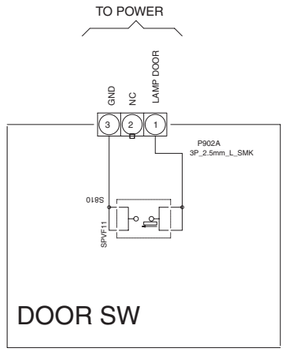


56/62/72HM195
BACK_AV (IR)
SHEET-5/6

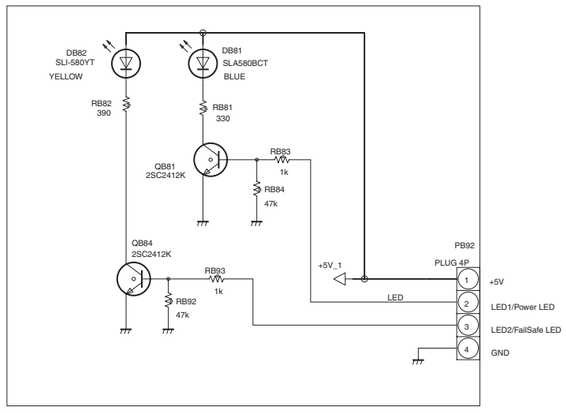


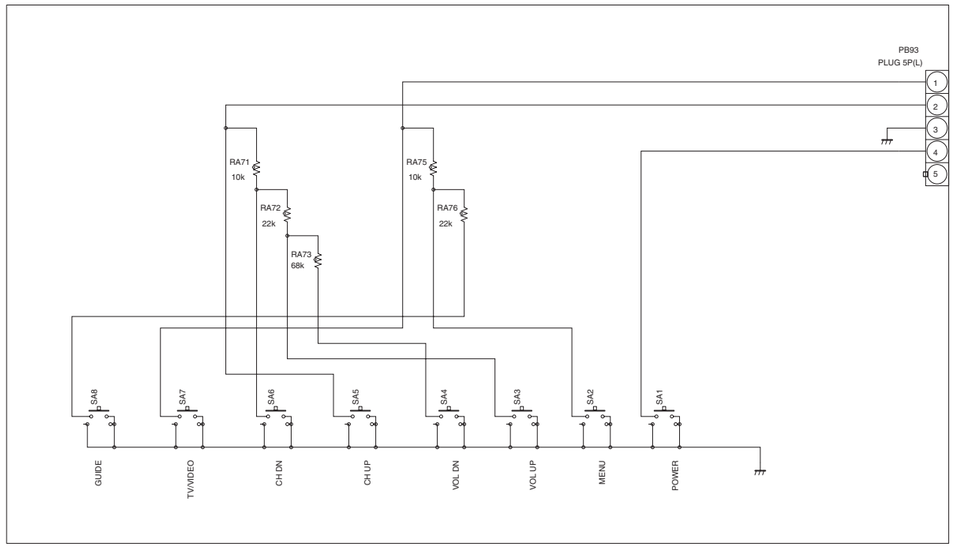
56/62/72HM195
BACK_AV (Audio OUT)
SHEET-6/6



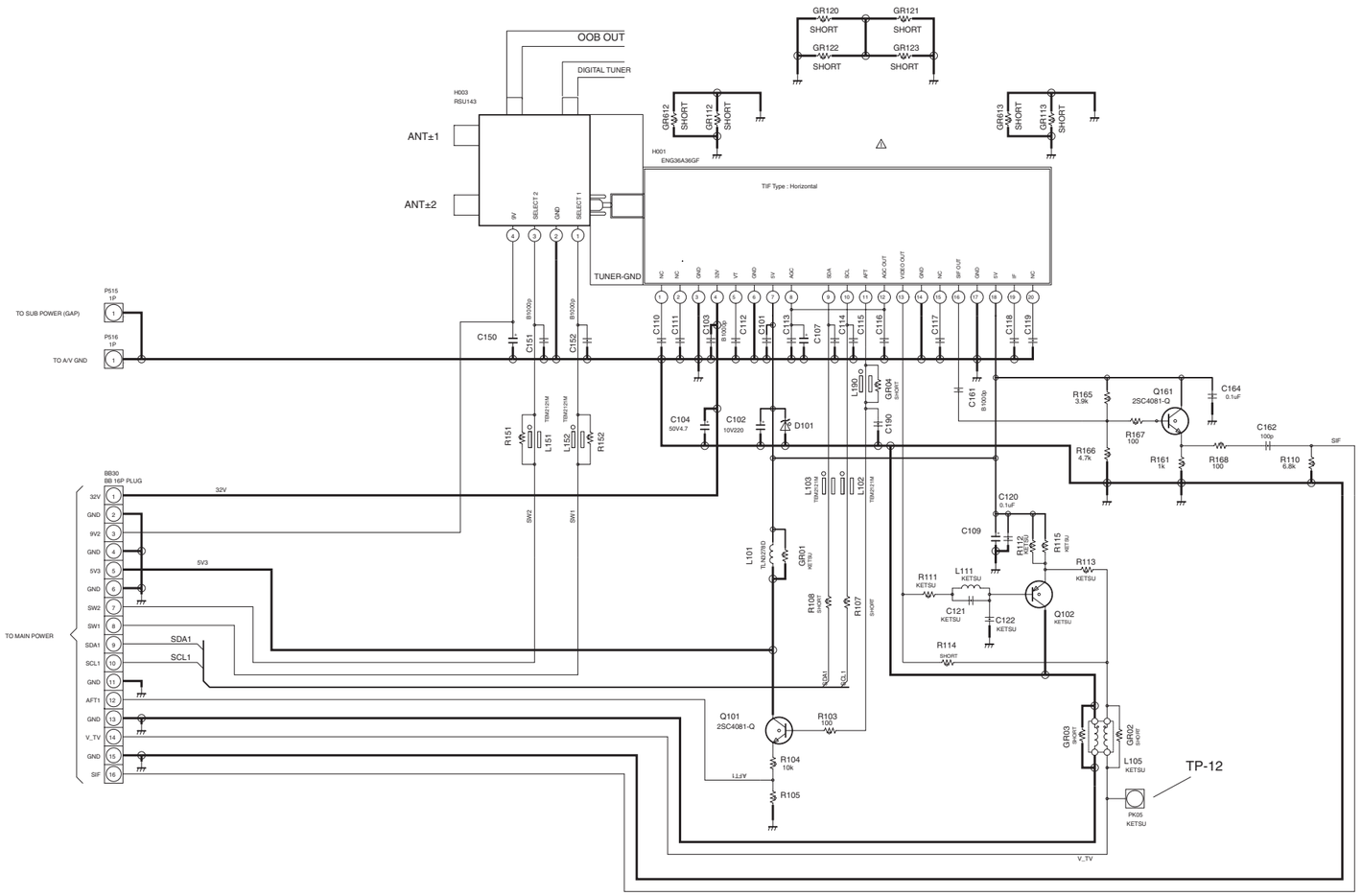


56/62/72HM195
FRONT_AV

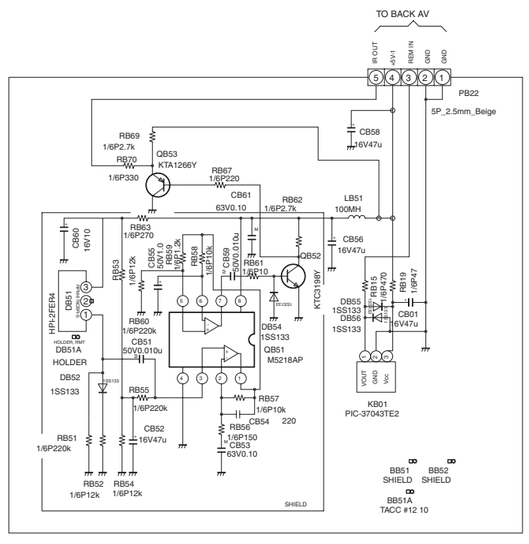




56/62/72HM195
FRONT_KEY (TOUCH_CONTROL_PANEL)



56/62/72HM195
RF_SW/TIF



56/62/72HM195
IR_BRASTER

LIVE AREA

BALLAST

P811A 2P

GJ20 OPEN

L820 TEM2014AA

C808 0.01u

L821 TEM2014AA

GJ21 OPEN

F899A

F899 250V2A

Q801 STR-Z4367

Q801A Q801B Q801C

BRN GND CONT CSS CD ST VCC DRVVCC OC NC COM OUT VB

C820 B16V0.22uK

D812 MTZJ9.1C

D811 AG01A

L804 TEM2011

C821 2kV680PF

C822 2kV820PF

D801 LN6SB60-F05

C805 250V470uF

D801B D801A D801C

C809 1000u 76086067

C810 1000u 76086067

F820 250V 3A

L803 TEM2011AH

C828 10000

R809 1/2W 6R8J

C823 220

C826 270

C825 800V333

R808 1/2R47

R812 1/2R39

R811 1/2R82

R813 1/6P15

C824 B4700p

D813 AL01Z

L805 TEM2011

R827 2R47k

C816 50V 47u

R810 1W 15SJ

C899 CD65-E2GA103MYGS

T862 TPW3070AS

B896 GND PLATE

B895 GND PLATE

L860 TEM2011

L859 TEM2011

F859 125V+4A

D859B D859A D859 RB080T-90

L864 TLN3015AH

C860 50V470u

AUDIO_VCC 3-A5

AUDIO_GND 3-A5

L858 TEM2011

D857 YG801C04RF119

F857 125V+5A

C866 B25V0.1

L862 TLN3015AH

12.5V 2-D1,3-B5

L857 TEM2011

D857A D857B

L871 OPEN

D871 OPEN

C867 25V1000u

C858 OPEN

L855 TEM2011AH

D855 YG801C04RF119

D855A D855B

C871 OPEN

F855 125V 5A

C865 16V1500u

C856 OPEN

L856 TEM2011AH

L861 TLN3015AH

10V 2-C1,3-B5

R880 1/2R1k

R816 1k

Q852 TLP421F(GR)

D870 1SS355-TE17

R877 470

R876 470

R875 470

C870 B25V0.1

R873 10

R872 10k_D

Q870 NJM431L

R874 1k

R871 3.3k_D

R829 8.2k

R830 8.2k

R845 3.3k

Q866 TLP421F(GR)

C840 0.1uF

R852 1k

R844 10k

Q851 KTA2014V

D843 DAN202U

R843 33k

R851 33k

R821 1M

R822 1M

R823 1M

R824 1M

D815 MA8082-M

R825 100K

R826 47k

Q815 2SC4116-Y

R828 100K

R841 10k

Q850 2SC4116-Y

R842 OPEN

AC_DET 3-B5

D842 MA8082-M

R840 1/2R47

SR82 DC12V 2314656843/2314658?

R850 4.7k

Q848 2SC4116-Y

D841 1SS355-TE17

Q849 KTA2014Y

R849 10k

R805 RW923H1R8K

SR81 DLSSD1-0 M 0.25W

2314659/2314659?

D840 1SS365-TE17

5V1 2-A4,3-B5

R848 3.3k

Q847 2SC4116-Y

Q846 2SC4116-Y

R847 15k

POWER_SIG_DET 2-B4,3-B5

R846 10k

Thermo BREAKER

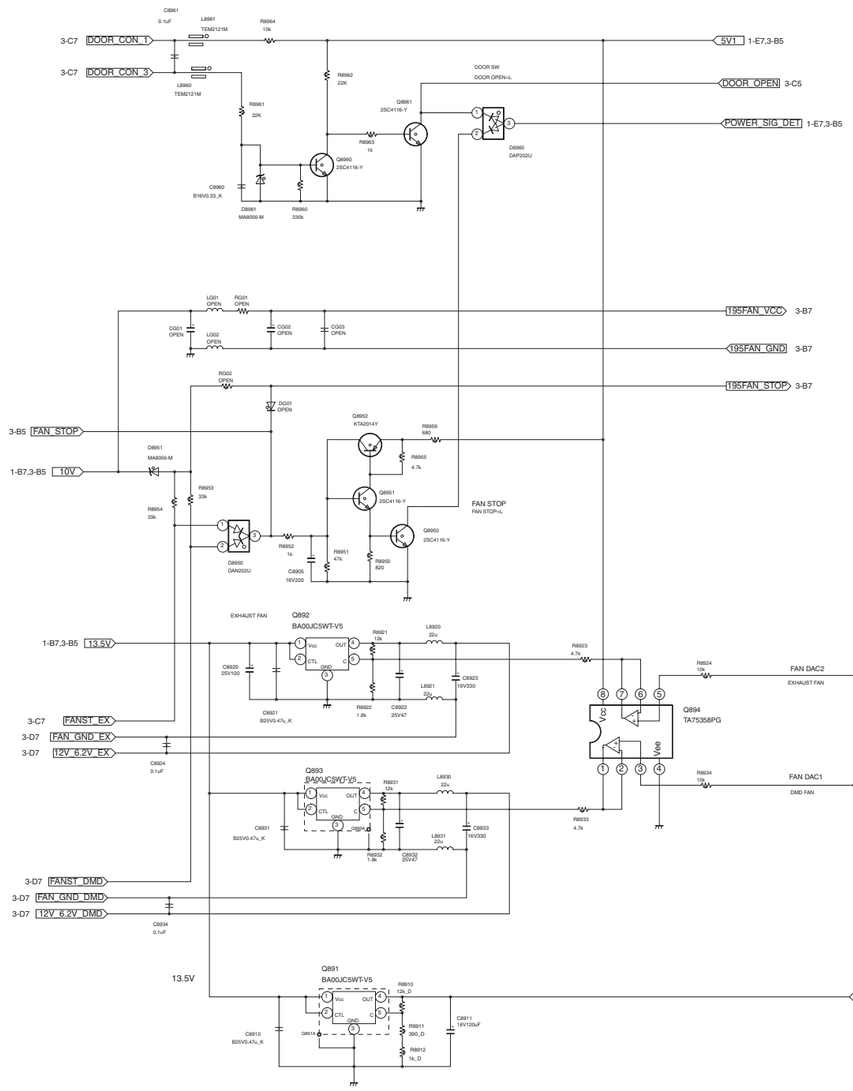
P805 PLUG 4P

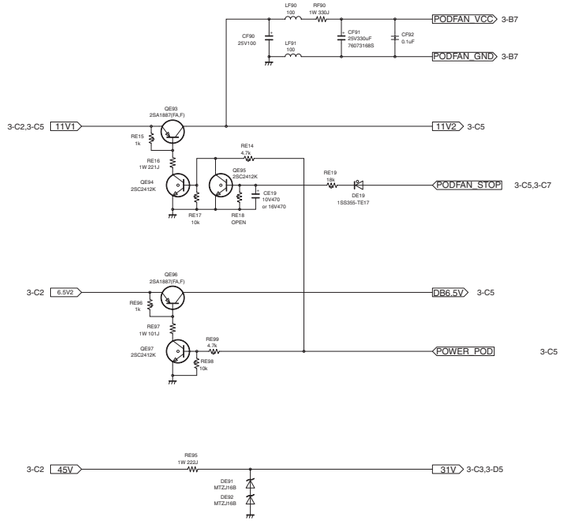
AC IN

C803 AC275V0.22u

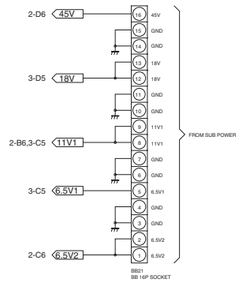
P807A PLUG 3P_5mm

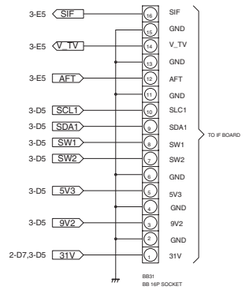
56/62/72HM195
MAIN_POWER
SHEET-1/3

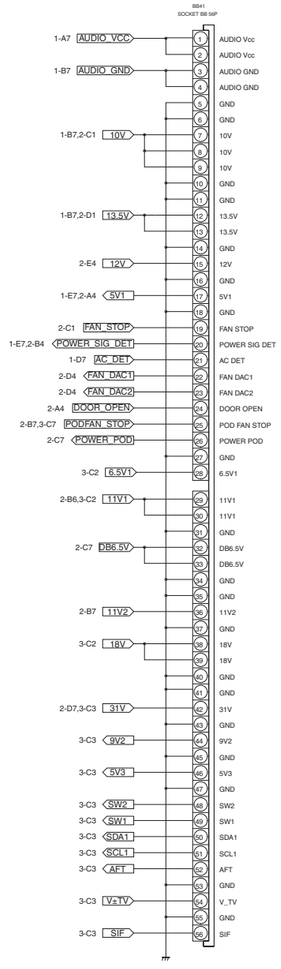




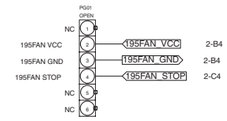
56/62/72HM195
MAIN_POWER (REG & PROTECT & SW)
SHEET-2/3



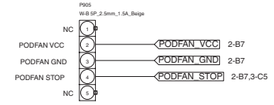




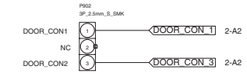
195 FAN



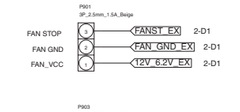
POD FAN



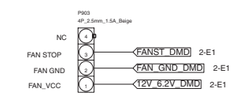
DOOR SWITCH



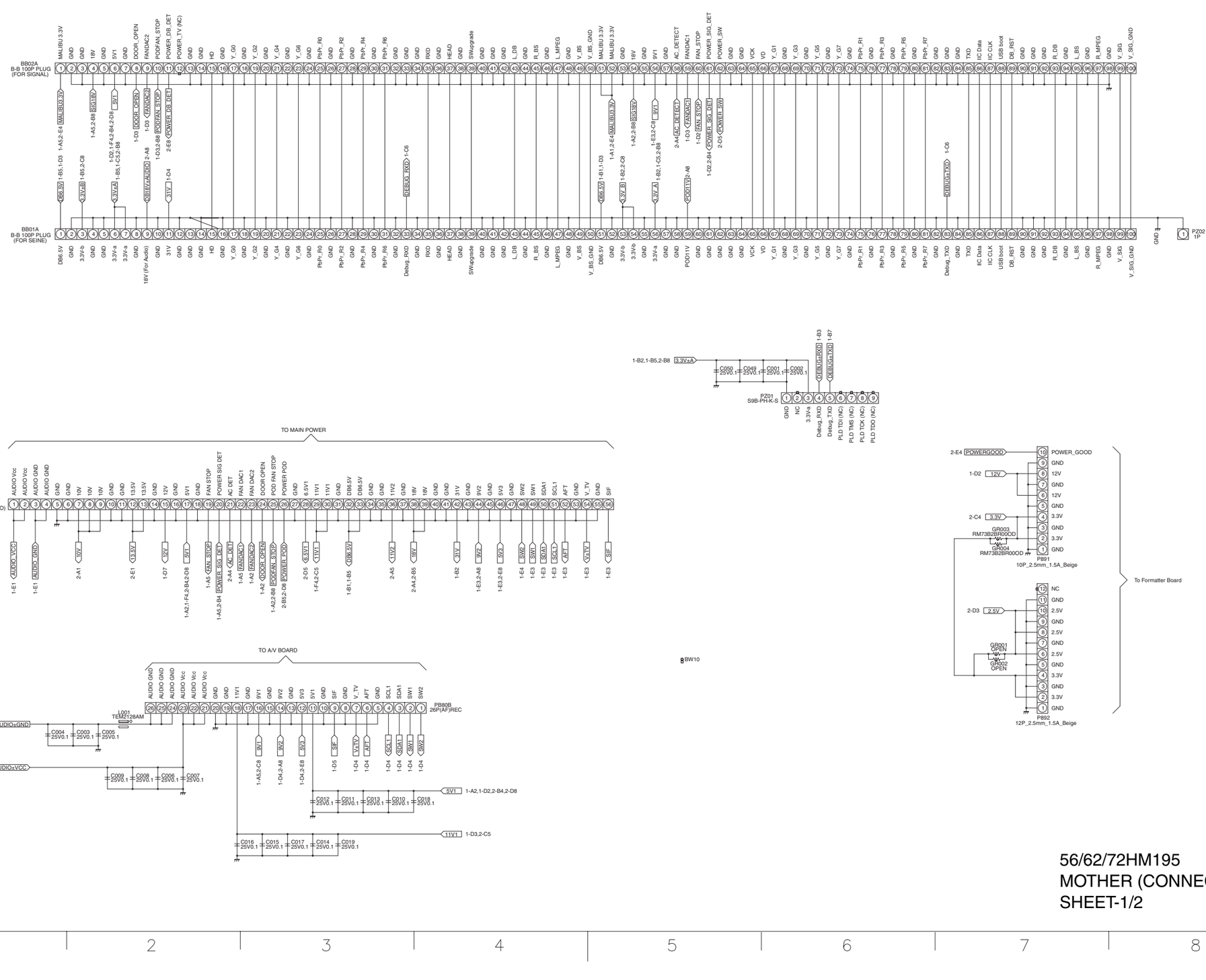
EXHAUST FAN



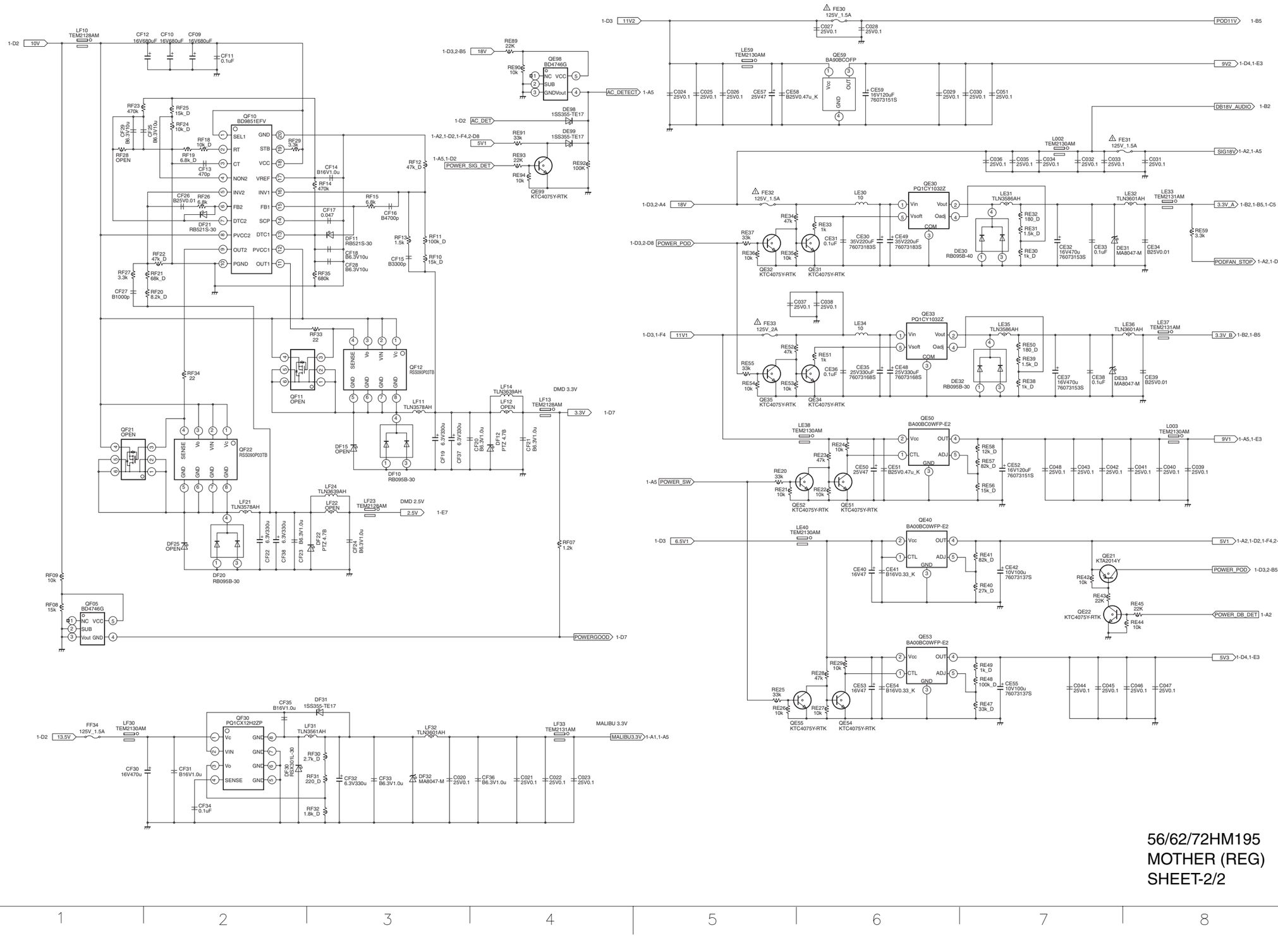
DMD FAN

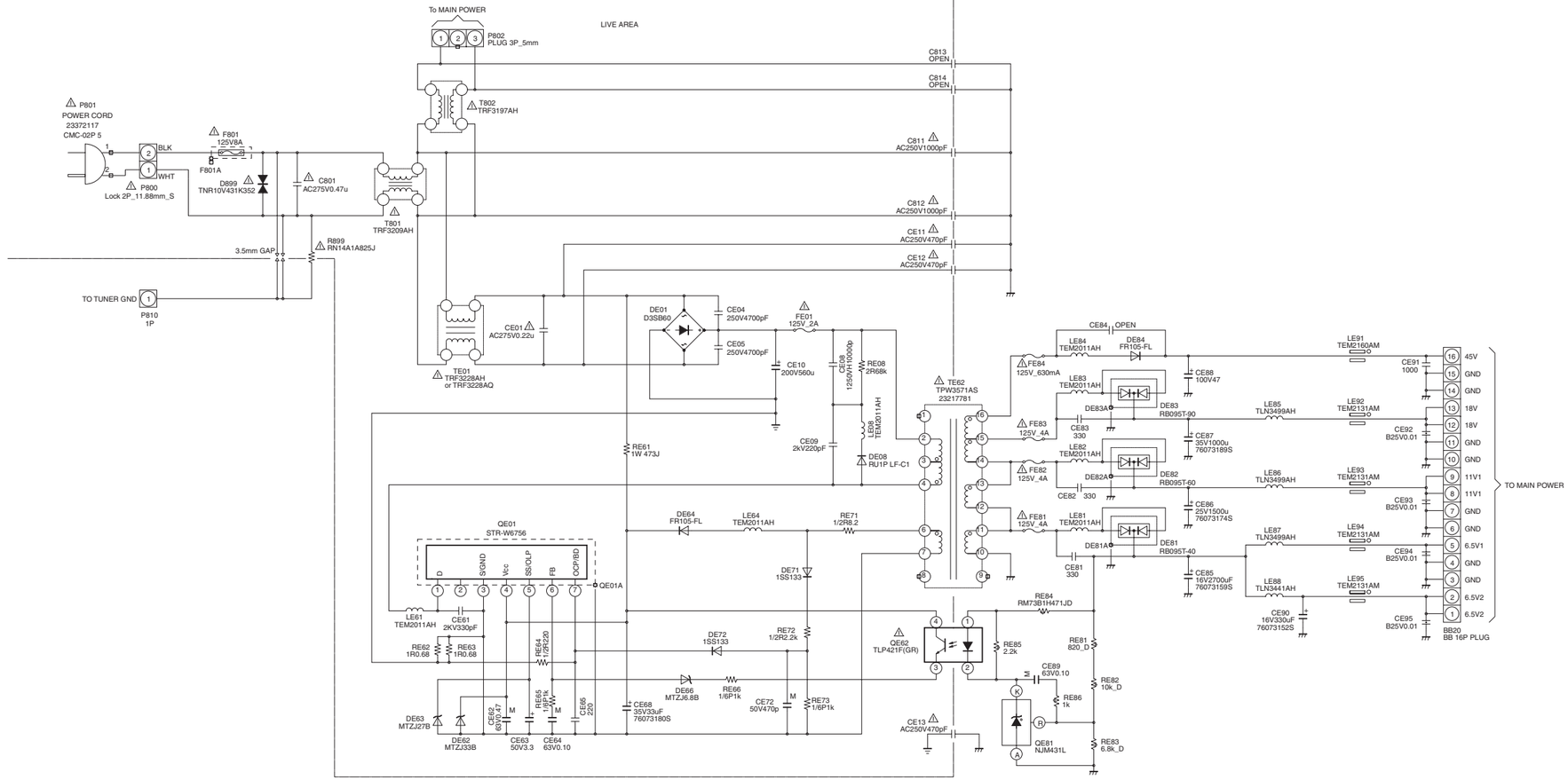


56/62/72HM195
MAIN_POWER (CONNECTOR)
SHEET-3/3

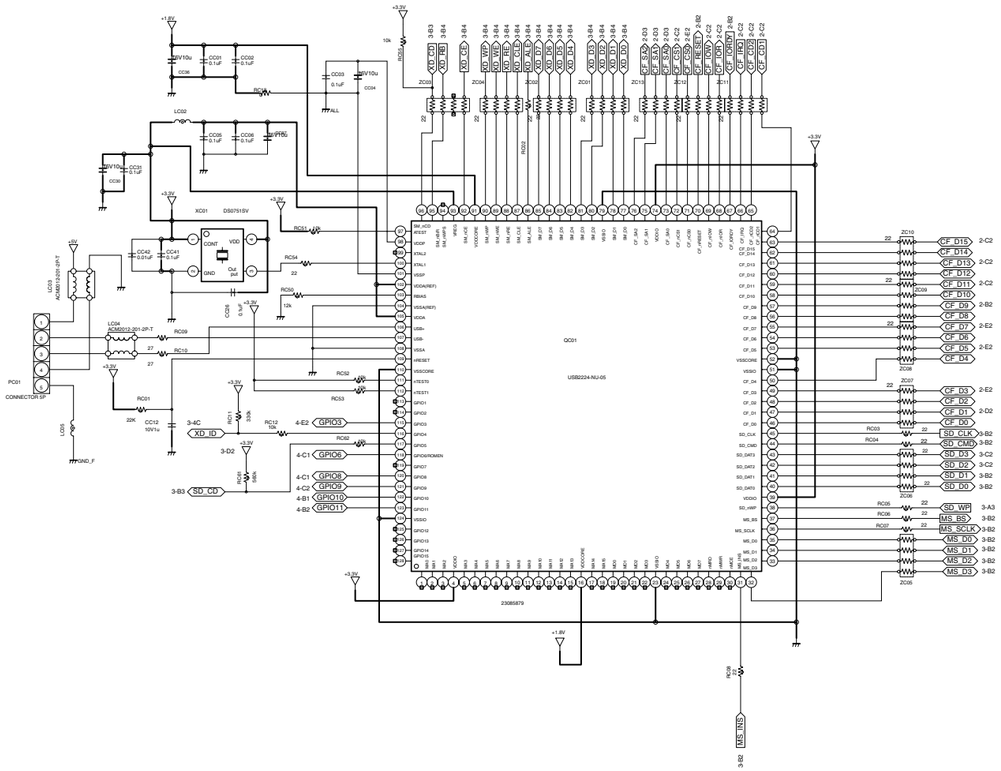


56/62/72HM195
MOTHER (CONNECTOR)
SHEET-1/2


1-D2 10V
LF10 TEM2128AM
CF12 16V680uF
CF10 16V680uF
CF09 16V680uF
CF11 0.1uF
QF10 BD9851EFV
SEL1
RT
CT
NON2
INV2
FB2
DTC2
PVCC2
OUT2
PGND
GND
STB
VCC
VREF
INV1
FB1
SCP
DTC1
PVCC1
OUT1
RF23 470k
RF25 15k_D
RF24 10k_D
RF18 10k_D
RF19 6.8k_D
RF28 OPEN
RF29 3.3k
CF13 470p
CF14 B16V1.0u
RF14 470k
CF26 B25V0.01
RF26 6.8k
RF15 6.8k
CF16 B4700p
CF17 0.047
DF21 RB521S-30
DF11 RB521S-30
CF18 B6.3V10u
CF28 B6.3V10u
RF27 3.3k
RF21 68K_D
RF20 8.2k_D
CF27 B1000p
RF22 47k_D
RF35 680k
RF13 1.5k
CF15 B3300p
RF11 100k_D
RF10 15k_D
1-D3,2-B5 18V
RE89 22K
RE90 10k
QE98 BD4746G
NC VCC
SUB
GNDVout
AC_DETECT 1-A5
1-D2 AC_DET
DE98 1SS355-TE17
1-A2,1-D2,1-F4,2-D8 5V1
DE99 1SS355-TE17
1-A5,1-D2 POWER_SIG_DET
RE91 33k
RE93 22K
RE94 10k
RE92 100K
QE99 KTC4075Y-RTK
RF12 47k_D
RF33 22
QF11 OPEN
QF12 RSS090P03TB
SENSE
Vo
VIN
Vc
GND
RF34 22
QF21 OPEN
QF22 RSS090P03TB
LF11 TLN3578AH
LF12 OPEN
LF13 TEM2128AM
DMD 3.3V
3.3V
1-D7
LF14 TLN3639AH
DF15 OPEN
DF10 RB095B-30
CF19 6.3V330u
CF37 6.3V330u
CF20 B6.3V1.0u
DF12 PTZ 4.7B
CF21 B6.3V1.0u
LF21 TLN3578AH
LF22 OPEN
LF23 TEM2128AM
LF24 TLN3639AH
DMD 2.5V
2.5V
1-E7
DF25 OPEN
DF20 RB095B-30
CF22 6.3V330u
CF38 6.3V330u
CF23 B6.3V1.0u
DF22 PTZ 4.7B
CF24 B6.3V1.0u
RF07 1.2k
RF09 10k
RF08 15k
QF05 BD4746G
NC VCC
SUB
Vout GND
POWERGOOD 1-D7
1-D3 11V2
FE30 125V_1.5A
C027 25V0.1
C028 25V0.1
POD11V 1-B5
LE59 TEM2130AM
QE59 BA90BCOFP
Vcc
OUT
GND
9V2 1-D4,1-E3
C024 25V0.1
C025 25V0.1
C026 25V0.1
CE57 25V47
CE58 B25V0.47u_K
CE59 16V120uF 76073151S
C029 25V0.1
C030 25V0.1
C051 25V0.1
DB18V_AUDIO 1-B2
L002 TEM2130AM
FE31 125V_1.5A
C036 25V0.1
C035 25V0.1
C034 25V0.1
C032 25V0.1
C033 25V0.1
C031 25V0.1
SIG18V 1-A2,1-A5
1-D3,2-A4 18V
FE32 125V_1.5A
LE30 10
QE30 PQ1CY1032Z
Vin
Vsoft
Vout
Oadj
COM
LE31 TLN3586AH
LE32 TLN3601AH
LE33 TEM2131AM
3.3V_A 1-B2,1-B5,1-C5
RE34 47k
RE33 1k
RE37 33k
RE36 10k
RE35 10k
QE32 KTC4075Y-RTK
QE31 KTC4075Y-RTK
CE31 0.1uF
CE30 35V220uF 76073183S
CE49 35V220uF 76073183S
DE30 RB095B-40
RE32 180_D
RE31 1.5k_D
RE30 1k_D
CE32 16V470u 76073153S
CE33 0.1uF
DE31 MA8047-M
CE34 B25V0.01
RE59 3.3k
PODFAN_STOP 1-A2,1-D3
1-D3,2-D8 POWER_POD
C037 25V0.1
C038 25V0.1
1-D3,1-F4 11V1
FE33 125V_2A
LE34 10
QE33 PQ1CY1032Z
LE35 TLN3586AH
LE36 TLN3601AH
LE37 TEM2131AM
3.3V_B 1-B2,1-B5
RE52 47k
RE51 1k
RE55 33k
RE54 10k
RE53 10k
QE35 KTC4075Y-RTK
QE34 KTC4075Y-RTK
CE36 0.1uF
CE35 25V330uF 7607316BS
CE48 25V330uF 7607316BS
DE32 RB095B-30
RE50 180_D
RE39 1.5k_D
RE38 1k_D
CE37 16V470u 76073153S
CE38 0.1uF
DE33 MA8047-M
CE39 B25V0.01
LE38 TEM2130AM
QE50 BA00BC0WFP-E2
Vcc
CTL
GND
OUT
ADJ
L003 TEM2130AM
9V1 1-A5,1-E3
RE24 10k
RE23 47k
RE20 33k
RE21 10k
RE22 10k
QE52 KTC4075Y-RTK
QE51 KTC4075Y-RTK
CE50 25V47
CE51 B25V0.47u_K
RE58 12k_D
RE57 82k_D
RE56 15k_D
CE52 16V120uF 76073151S
C048 25V0.1
C043 25V0.1
C042 25V0.1
C041 25V0.1
C040 25V0.1
C039 25V0.1
1-A5 POWER_SW
1-D3 6.5V1
LE40 TEM2130AM
QE40 BA00BC0WFP-E2
5V1 1-A2,1-D2,1-F4,2-B4
CE40 16V47
CE41 B16V0.33_K
RE41 82k_D
RE40 27k_D
CE42 10V100u 76073137S
QE21 KTA2014Y
POWER_POD 1-D3,2-B5
RE42 10k
RE43 22K
RE45 22K
RE44 10k
QE22 KTC4075Y-RTK
POWER_DB_DET 1-A2
QE53 BA00BC0WFP-E2
5V3 1-D4,1-E3
RE29 10k
RE28 47k
RE25 33k
RE26 10k
RE27 10k
QE55 KTC4075Y-RTK
QE54 KTC4075Y-RTK
CE53 16V47
CE54 B16V0.33_K
RE49 1k_D
RE48 100k_D
RE47 33k_D
CE55 10V100u 76073137S
C044 25V0.1
C045 25V0.1
C046 25V0.1
C047 25V0.1
1-D2 13.5V
FF34 125V_1.5A
LF30 TEM2130AM
QF30 PQ1CX12H2ZP
Vc
VIN
Vo
SENSE
GND
CF35 B16V1.0u
DF31 1SS355-TE17
LF31 TLN3561AH
LF32 TLN3601AH
LF33 TEM2131AM
MALIBU 3.3V
MALIBU3.3V 1-A1,1-A5
CF30 16V470u
CF31 B16V1.0u
DF30 RSX301L-30
RF30 2.7k_D
RF31 220_D
RF32 1.8k_D
CF34 0.1uF
CF32 6.3V330u
CF33 B6.3V1.0u
DF32 MA8047-M
C020 25V0.1
CF36 B6.3V1.0u
C021 25V0.1
C022 25V0.1
C023 25V0.1
56/62/72HM195
MOTHER (REG)
SHEET-2/2

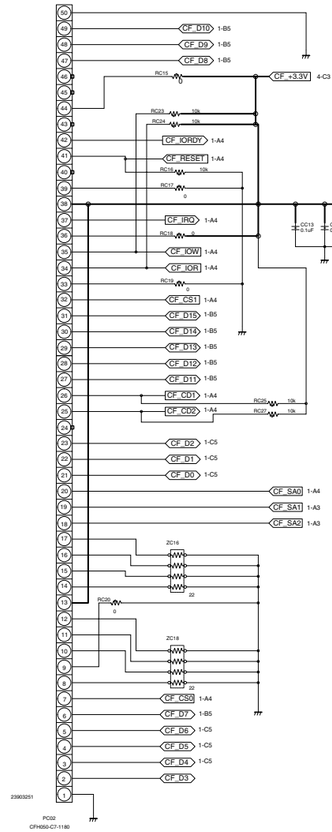


56/62/72HM195
SUB POWER

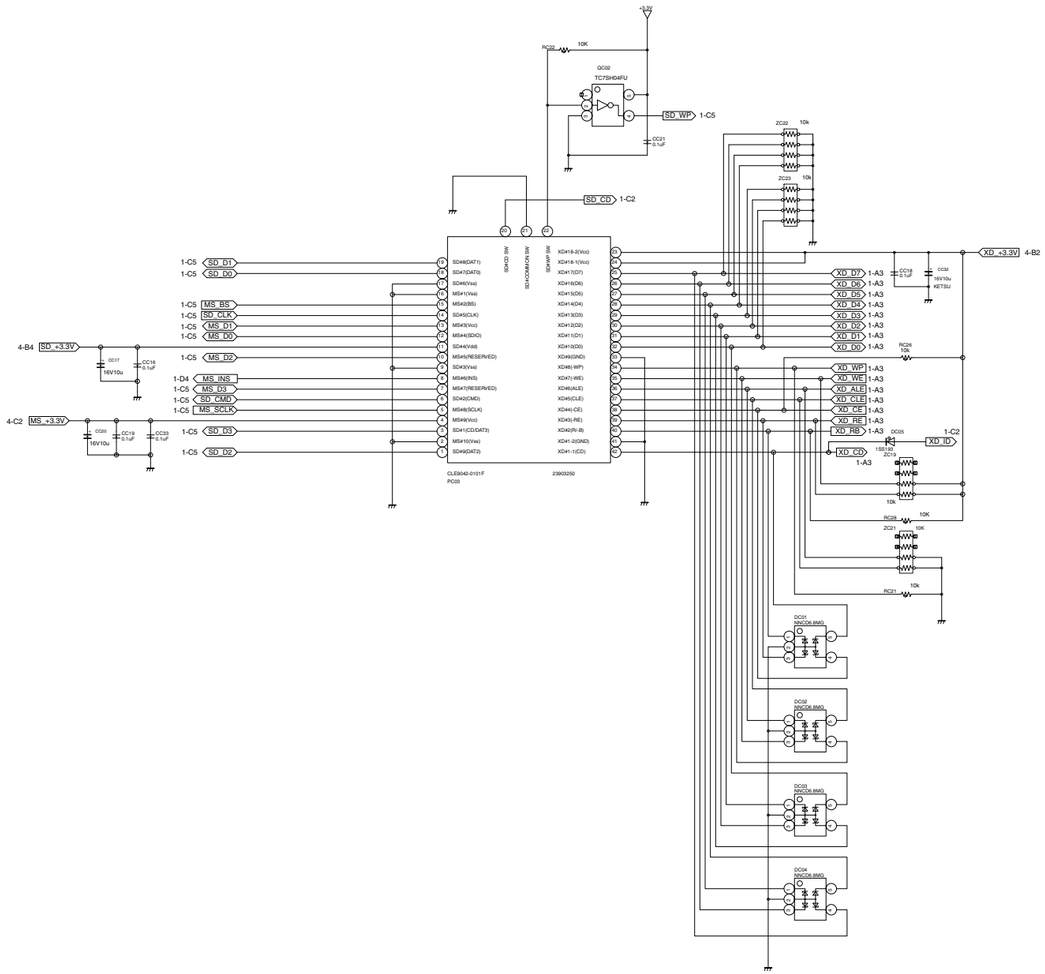


56/62/72HM195
MULTI_CARD (1/4)
SHEET-1/4

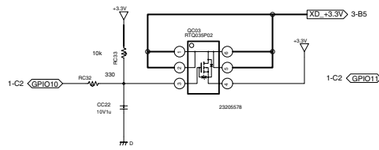
CFH050-C7-1180

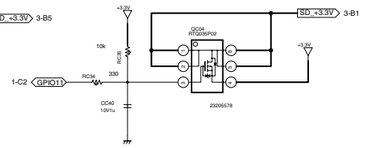


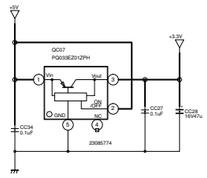
56/62/72HM195
MULTI_CARD (2/4)
SHEET-2/4

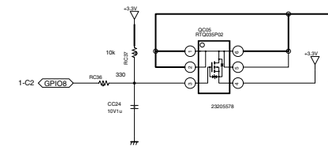


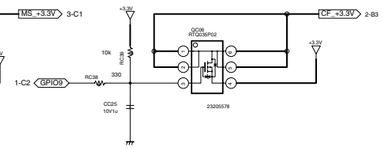
56/62/72HM195
MULTI_CARD (3/4)
SHEET-3/4

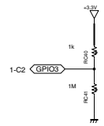


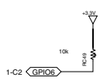




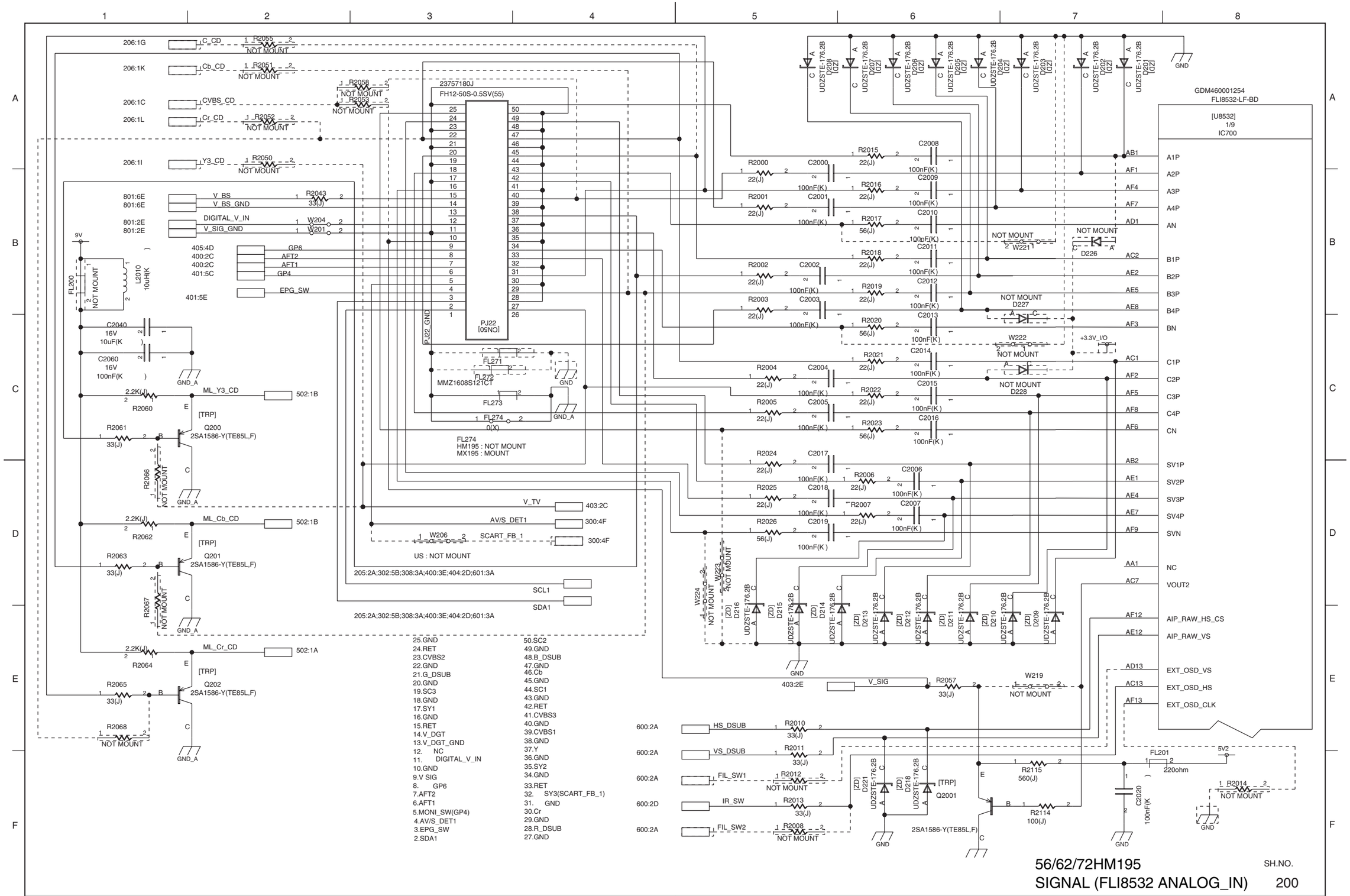


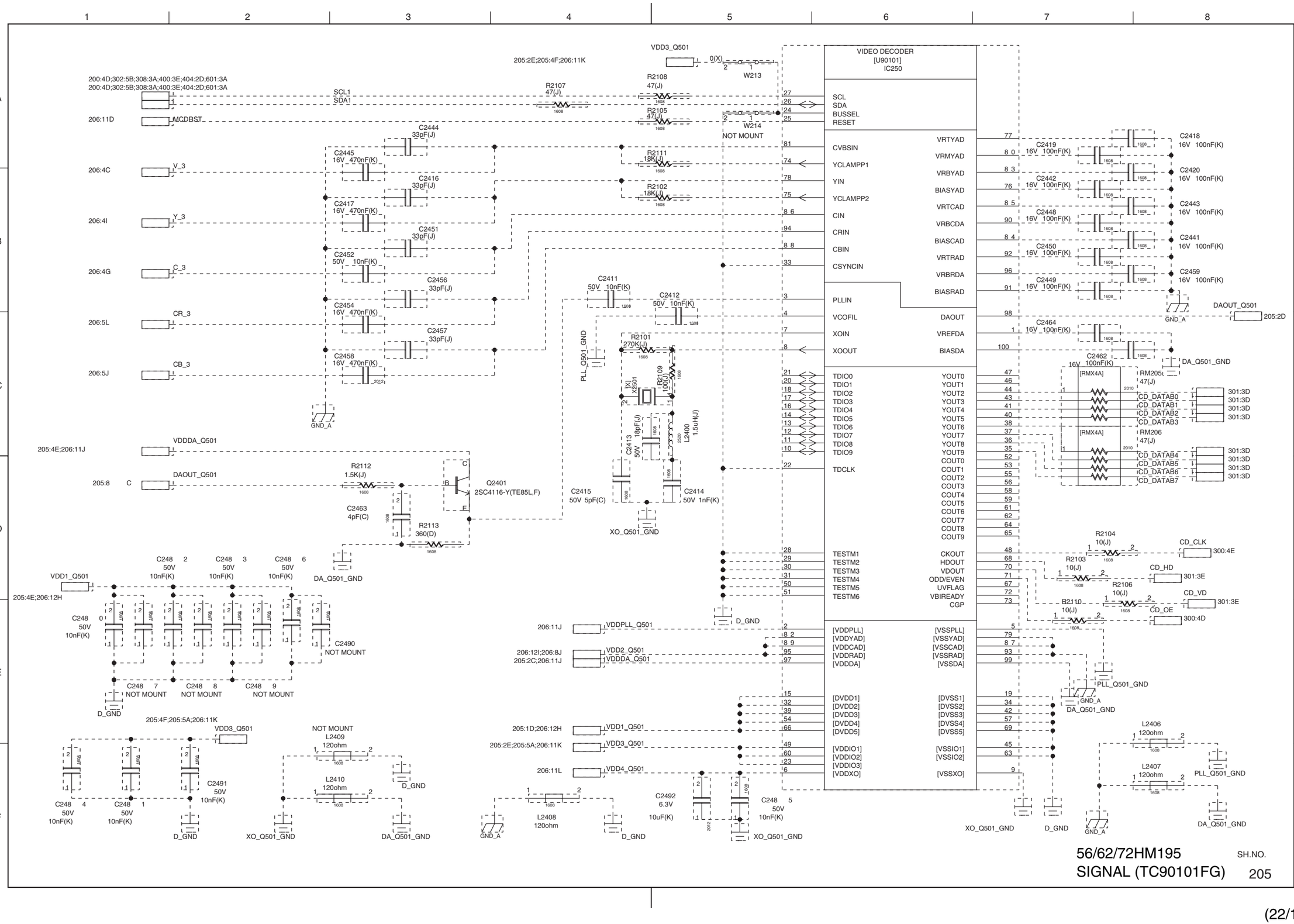


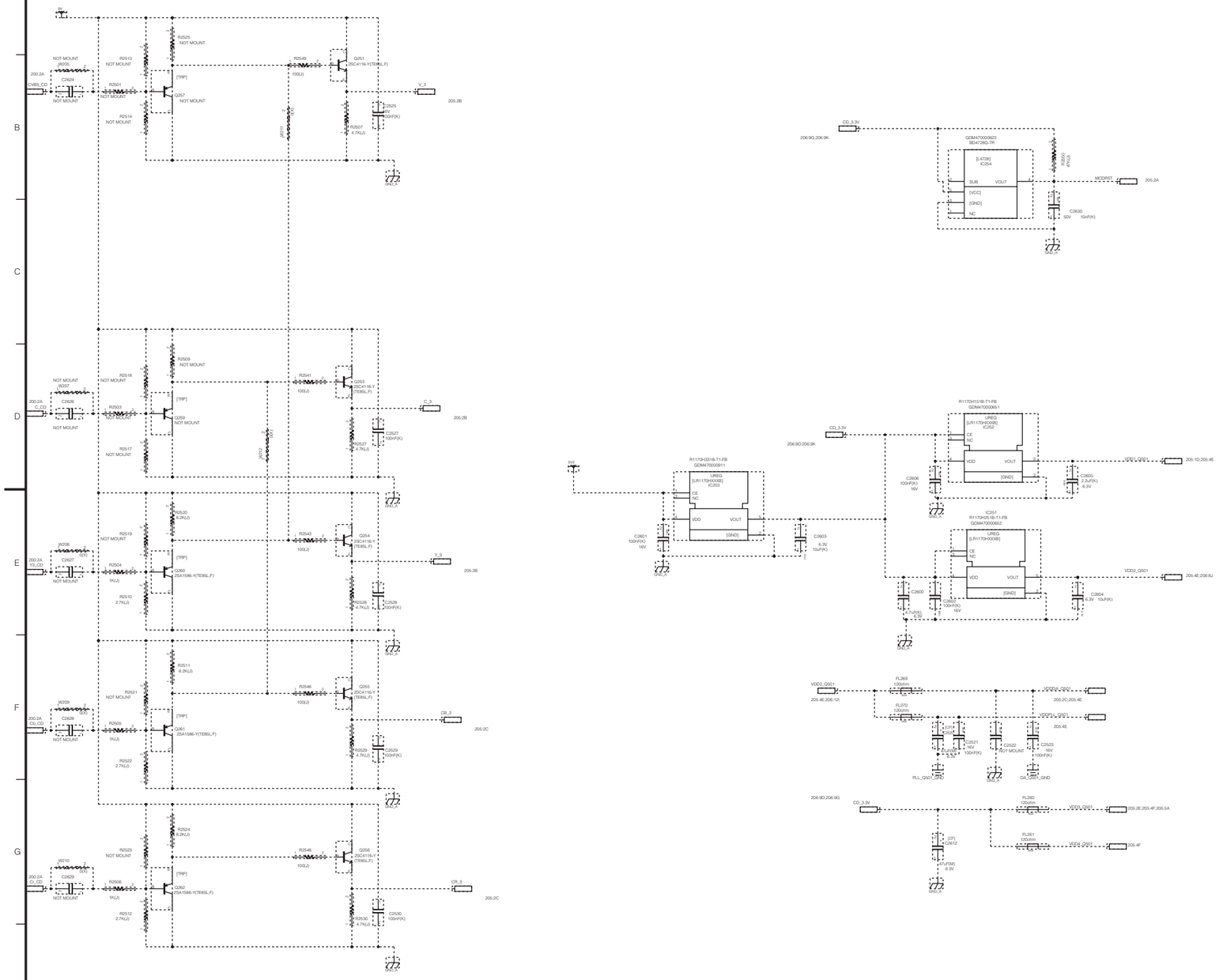




56/62/72HM195
MULTI_CARD (4/4)
SHEET-4/4

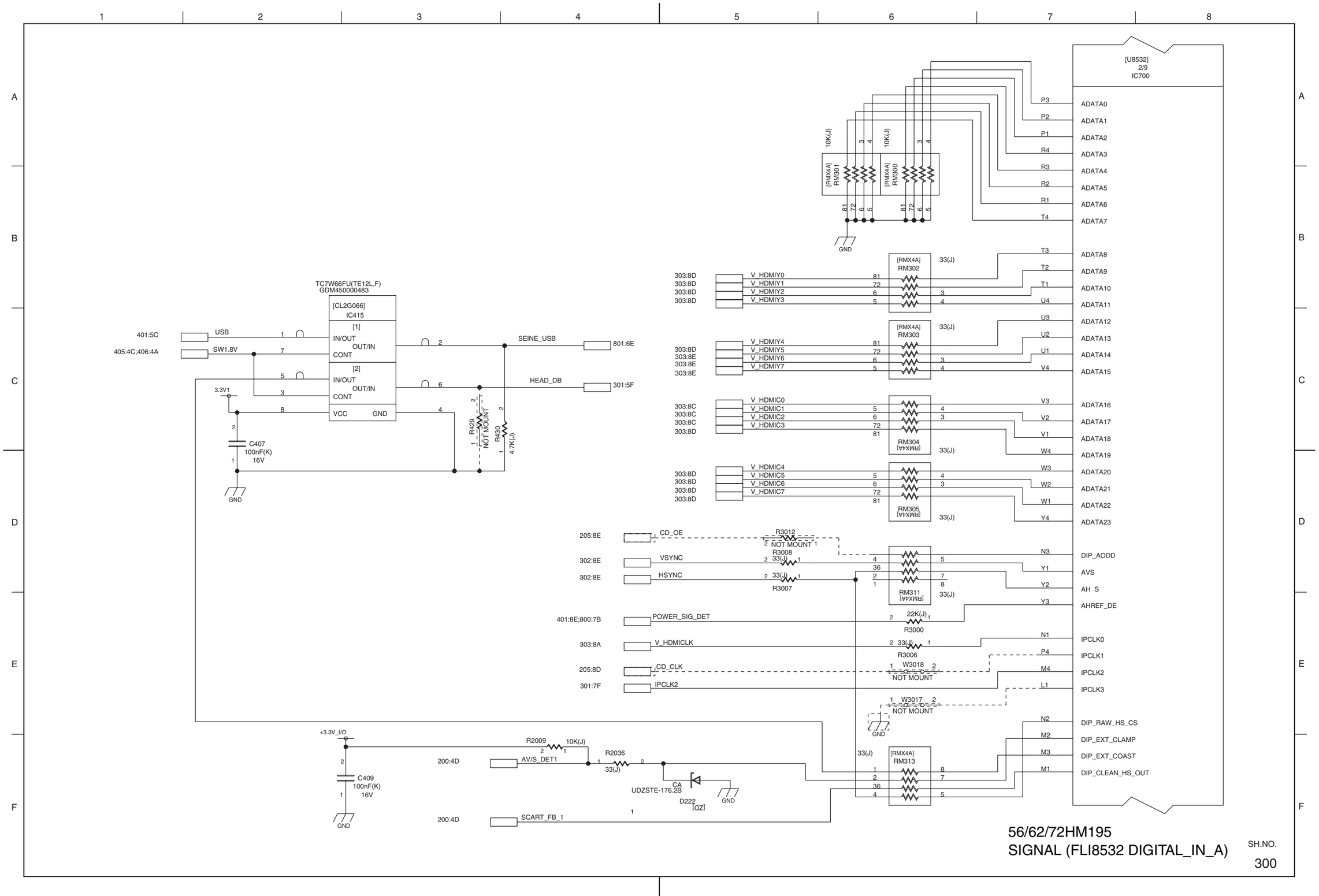

206:1G
C_CD
R2055
NOT MOUNT
206:1K
Cb_CD
R2051
NOT MOUNT
206:1C
CVBS_CD
R2058
R2053
NOT MOUNT
206:1L
Cr_CD
R2052
NOT MOUNT
206:1I
Y3_CD
R2050
NOT MOUNT
801:6E
V_BS
R2043
33(J)
801:6E
V_BS_GND
801:2E
DIGITAL_V_IN
W204
801:2E
V_SIG_GND
W201
9V
FL200
NOT MOUNT
L2010
10uH(K
405:4D
GP6
400:2C
AFT2
400:2C
AFT1
401:5C
GP4
EPG_SW
401:5E
C2040
16V
10uF(K
C2060
16V
100nF(K
GND_A
2.2K(J)
R2060
ML_Y3_CD
502:1B
[TRP]
Q200
2SA1586-Y(TE85L,F)
R2061
33(J)
R2066
NOT MOUNT
ML_Cb_CD
502:1B
R2062
Q201
2SA1586-Y(TE85L,F)
R2063
33(J)
R2067
NOT MOUNT
ML_Cr_CD
502:1A
R2064
Q202
2SA1586-Y(TE85L,F)
R2065
33(J)
R2068
NOT MOUNT
23757180J
FH12-50S-0.5SV(55)
PJ22
[09NO]
PJ22_GND
FL271
FL272
MMZ1608S121CT
GND
FL273
FL274
0(X)
GND_A
FL274
HM195 : NOT MOUNT
MX195 : MOUNT
V_TV
403:2C
AV/S_DET1
300:4F
W206
SCART_FB_1
300:4F
US : NOT MOUNT
205:2A;302:5B;308:3A;400:3E;404:2D;601:3A
SCL1
SDA1
205:2A;302:5B;308:3A;400:3E;404:2D;601:3A
25.GND
24.RET
23.CVBS2
22.GND
21.G_DSUB
20.GND
19.SC3
18.GND
17.SY1
16.GND
15.RET
14.V_DGT
13.V_DGT_GND
12. NC
11. DIGITAL_V_IN
10.GND
9.V SIG
8. GP6
7.AFT2
6.AFT1
5.MONI_SW(GP4)
4.AV/S_DET1
3.EPG_SW
2.SDA1
50.SC2
49.GND
48.B_DSUB
47.GND
46.Cb
45.GND
44.SC1
43.GND
42.RET
41.CVBS3
40.GND
39.CVBS1
38.GND
37.Y
36.GND
35.SY2
34.GND
33.RET
32. SY3(SCART_FB_1)
31. GND
30.Cr
29.GND
28.R_DSUB
27.GND
UDZSTE-176.2B
D208 [DZ]
D207 [DZ]
D206 [DZ]
D205 [DZ]
D204 [DZ]
D203 [DZ]
D202 [DZ]
D201 [DZ]
GND
GDM460001254
FLI8532-LF-BD
[U8532]
1/9
IC700
R2000
C2000
100nF(K)
R2001
C2001
R2002
C2002
R2003
C2003
R2004
C2004
R2005
C2005
R2024
C2017
R2025
C2018
R2026
C2019
R2015
C2008
R2016
C2009
R2017
C2010
R2018
C2011
R2019
C2012
R2020
C2013
R2021
C2014
R2022
C2015
R2023
C2016
R2006
C2006
R2007
C2007
22(J)
56(J)
NOT MOUNT
W221
D226
W222
+3.3V_I/O
D227
D228
W223
W224
D216
D215
D214
D213
D212
D211
D210
D209
AB1
AF1
AF4
AF7
AD1
AC2
AE2
AE5
AE8
AF3
AC1
AF2
AF5
AF8
AF6
CN
AB2
AE1
AE4
AE7
AF9
AA1
AC7
AF12
AE12
AD13
AC13
AF13
A1P
A2P
A3P
A4P
AN
B1P
B2P
B3P
B4P
BN
C1P
C2P
C3P
C4P
SV1P
SV2P
SV3P
SV4P
SVN
NC
VOUT2
AIP_RAW_HS_CS
AIP_RAW_VS
EXT_OSD_VS
EXT_OSD_HS
EXT_OSD_CLK
403:2E
V_SIG
R2057
33(J)
W219
NOT MOUNT
600:2A
HS_DSUB
R2010
33(J)
600:2A
VS_DSUB
R2011
33(J)
600:2A
FIL_SW1
R2012
NOT MOUNT
600:2D
IR_SW
R2013
33(J)
600:2A
FIL_SW2
R2008
NOT MOUNT
D221
D218
[TRP]
Q2001
2SA1586-Y(TE85L,F)
R2115
560(J)
R2114
100(J)
FL201
220ohm
5V2
C2020
100nF(K
R2014
NOT MOUNT
56/62/72HM195
SIGNAL (FLI8532 ANALOG_IN)
SH.NO.
200


VIDEO DECODER
[U90101]
IC250
SCL
SDA
BUSSEL
RESET
CVBSIN
YCLAMPP1
YIN
YCLAMPP2
CIN
CRIN
CBIN
CSYNCIN
PLLIN
VCOFIL
XOIN
XOOUT
TDIO0
TDIO1
TDIO2
TDIO3
TDIO4
TDIO5
TDIO6
TDIO7
TDIO8
TDIO9
TDCLK
TESTM1
TESTM2
TESTM3
TESTM4
TESTM5
TESTM6
[VDDPLL]
[VDDYAD]
[VDDCAD]
[VDDRAD]
[VDDDA]
[DVDD1]
[DVDD2]
[DVDD3]
[DVDD4]
[DVDD5]
[VDDIO1]
[VDDIO2]
[VDDIO3]
[VDDXO]
VRTYAD
VRMYAD
VRBYAD
BIASYAD
VRTCAD
VRBCDA
BIASCAD
VRTRAD
VRBRDA
BIASRAD
DAOUT
VREFDA
BIASDA
YOUT0
YOUT1
YOUT2
YOUT3
YOUT4
YOUT5
YOUT6
YOUT7
YOUT8
YOUT9
COUT0
COUT1
COUT2
COUT3
COUT4
COUT5
COUT6
COUT7
COUT8
COUT9
CKOUT
HDOUT
VDOUT
ODD/EVEN
UVFLAG
VBIREADY
CGP
[VSSPLL]
[VSSYAD]
[VSSCAD]
[VSSRAD]
[VSSDA]
[DVSS1]
[DVSS2]
[DVSS3]
[DVSS4]
[DVSS5]
[VSSIO1]
[VSSIO2]
[VSSXO]
205:2E;205:4F;206:11K
VDD3_Q501
0(X)
W213
W214
NOT MOUNT
R2107 47(J)
R2108 47(J)
R2105 47(J)
SCL1
SDA1
MCDRST
200:4D;302:5B;308:3A;400:3E;404:2D;601:3A
200:4D;302:5B;308:3A;400:3E;404:2D;601:3A
206:11D
V_3
C_3
CR_3
CB_3
206:4C
206:4I
206:4G
206:5L
206:5J
C2444 33pF(J)
C2445 16V 470nF(K)
C2416 33pF(J)
C2417 16V 470nF(K)
C2451 33pF(J)
C2452 50V 10nF(K)
C2456 33pF(J)
C2454 16V 470nF(K)
C2457 33pF(J)
C2458 16V 470nF(K)
R2111 18K(J)
R2102 18K(J)
C2411 50V 10nF(K)
C2412 50V 10nF(K)
R2101 270K(J)
R2109 100(J)
X2501
C2413 50V 18pF(J)
L2400 1.5uH(J)
C2415 50V 5pF(C)
C2414 50V 1nF(K)
PLL_Q501_GND
XO_Q501_GND
GND_A
D_GND
205:4E;206:11J
VDDDA_Q501
205:8 C
DAOUT_Q501
R2112 1.5K(J)
Q2401 2SC4116-Y(TE85L,F)
C2463 4pF(C)
R2113 360(D)
DA_Q501_GND
C248 2 50V 10nF(K)
C248 3 50V 10nF(K)
C248 6 50V 10nF(K)
VDD1_Q501
205:4E;206:12H
C248 0 50V 10nF(K)
C2490 NOT MOUNT
C248 7 NOT MOUNT
C248 8 NOT MOUNT
C248 9 NOT MOUNT
205:4F;205:5A;206:11K
VDD3_Q501
C248 4 50V 10nF(K)
C248 1 50V 10nF(K)
C2491 50V 10nF(K)
NOT MOUNT
L2409 120ohm
L2410 120ohm
206:11J
VDDPLL_Q501
206:12I;206:8J
205:2C;206:11J
VDD2_Q501
VDDDA_Q501
205:1D;206:12H
VDD1_Q501
205:2E;205:5A;206:11K
VDD3_Q501
206:11L
VDD4_Q501
L2408 120ohm
C2492 6.3V 10uF(K)
C248 5 50V 10nF(K)
C2419 16V 100nF(K)
C2442 16V 100nF(K)
C2448 16V 100nF(K)
C2450 16V 100nF(K)
C2449 16V 100nF(K)
C2418 16V 100nF(K)
C2420 16V 100nF(K)
C2443 16V 100nF(K)
C2441 16V 100nF(K)
C2459 16V 100nF(K)
C2464 16V 100nF(K)
C2462 16V 100nF(K)
DAOUT_Q501
205:2D
DA_Q501_GND
[RMX4A]
RM205 47(J)
RM206 47(J)
CD_DATAB0
CD_DATAB1
CD_DATAB2
CD_DATAB3
CD_DATAB4
CD_DATAB5
CD_DATAB6
CD_DATAB7
301:3D
R2104 10(J)
R2103 10(J)
R2106 10(J)
R2110 10(J)
CD_CLK
CD_HD
CD_VD
CD_OE
300:4E
301:3E
300:4D
L2406 120ohm
L2407 120ohm
PLL_Q501_GND
56/62/72HM195
SIGNAL (TC90101FG)
SH.NO.
205



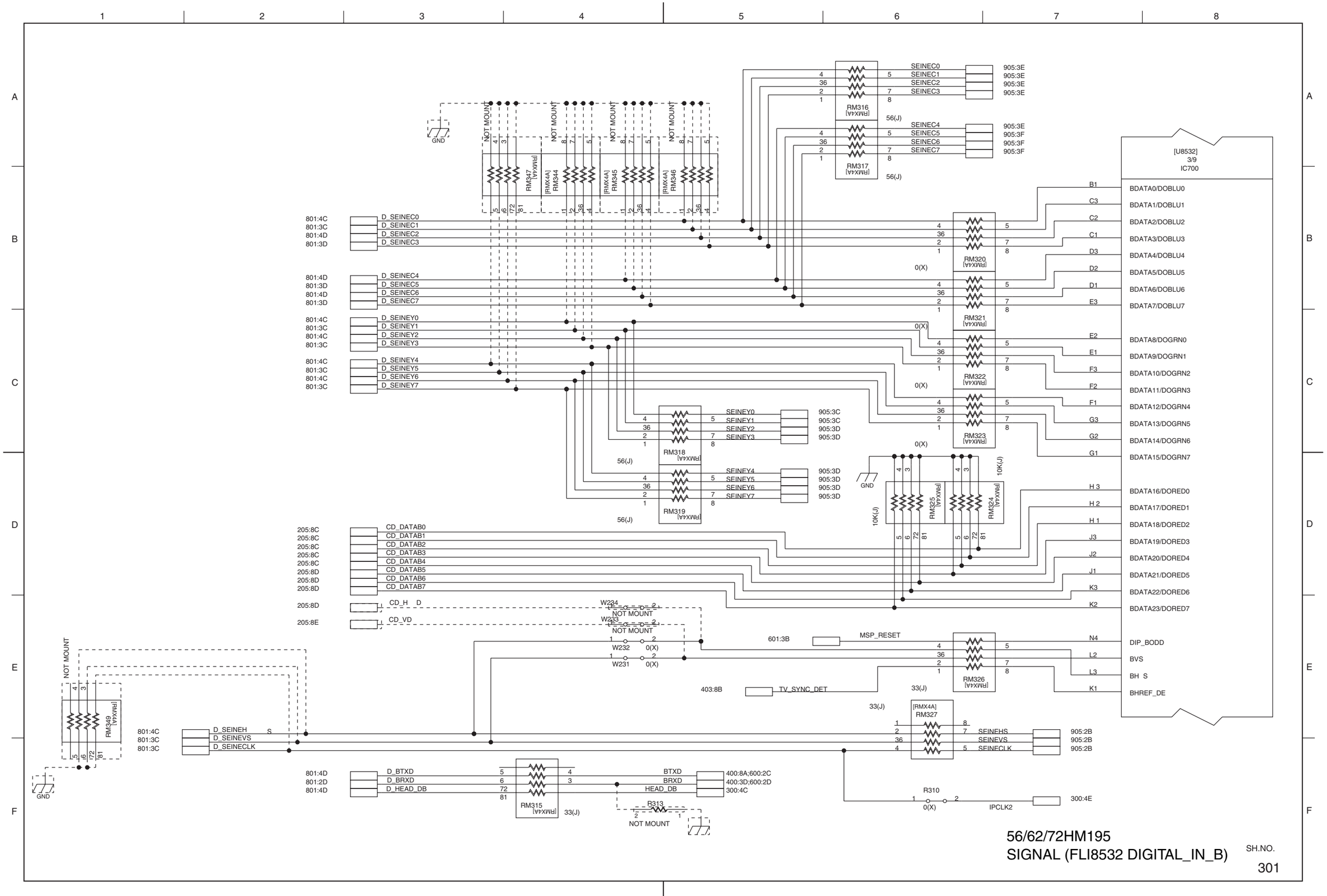
56/62/72HM195
SIGNAL (COLOR- DEC- REG)

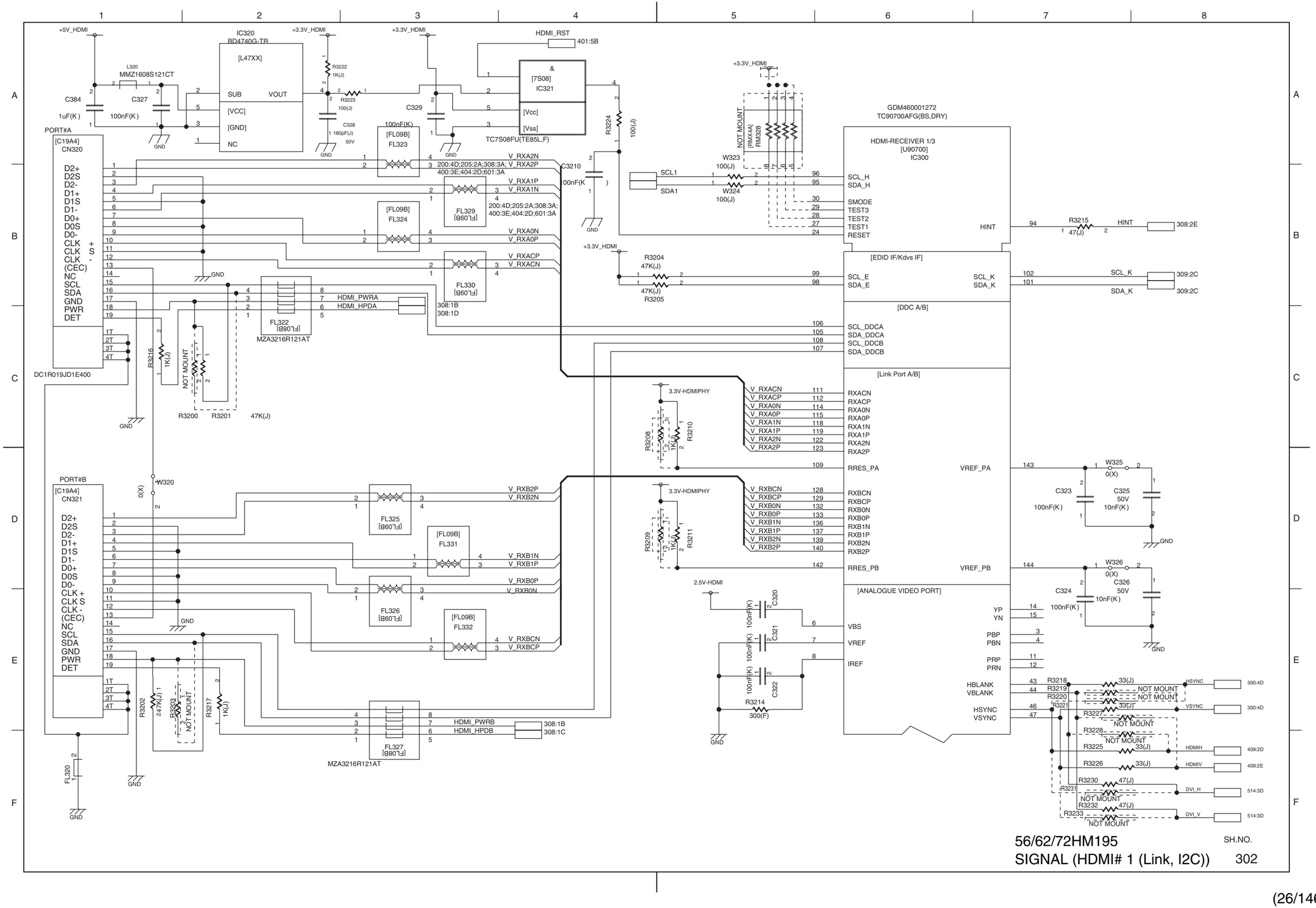
SH.NO.
206

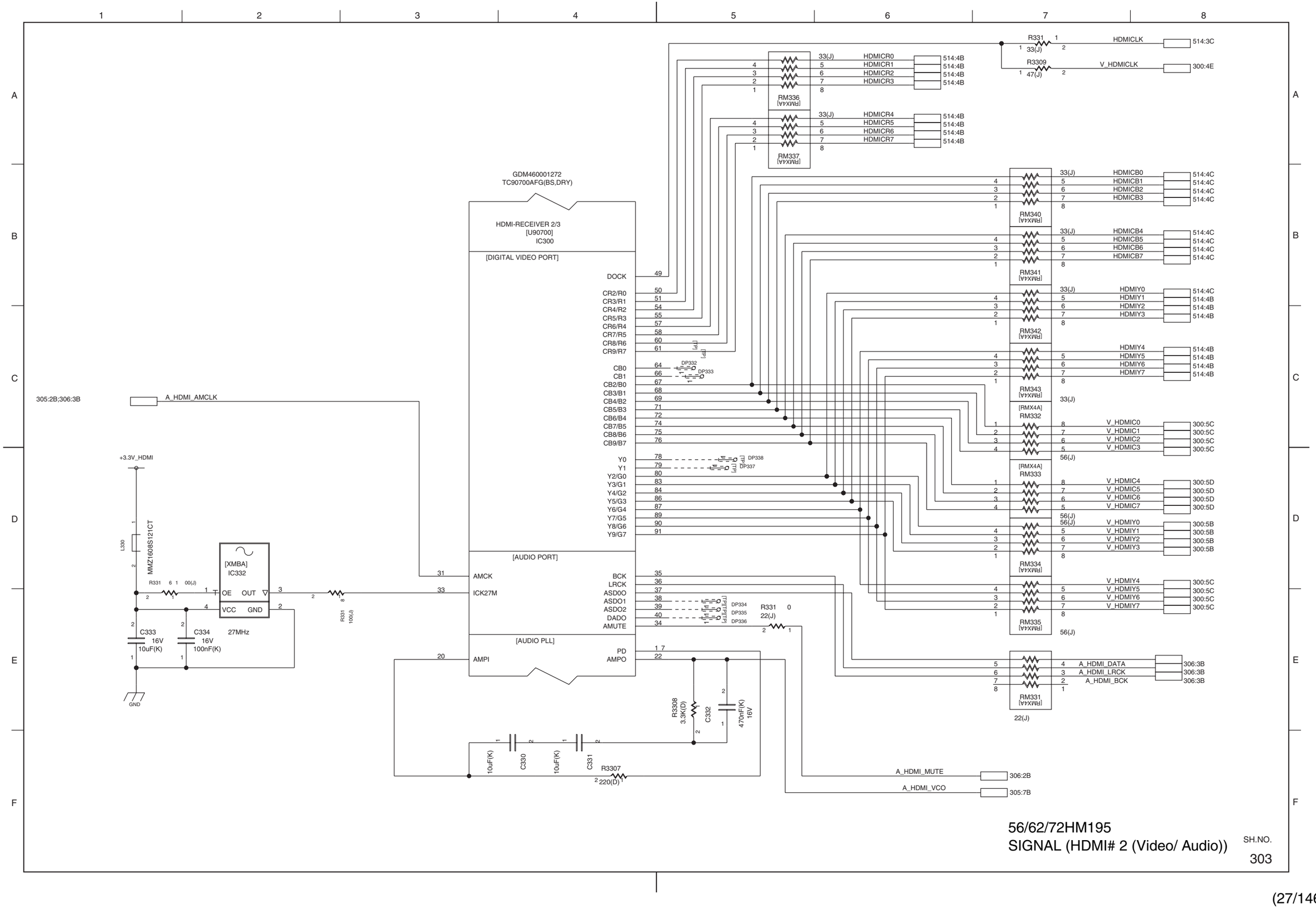


56/62/72HM195
SIGNAL (FLI8532 DIGITAL_IN_A)

SH.NO.
300

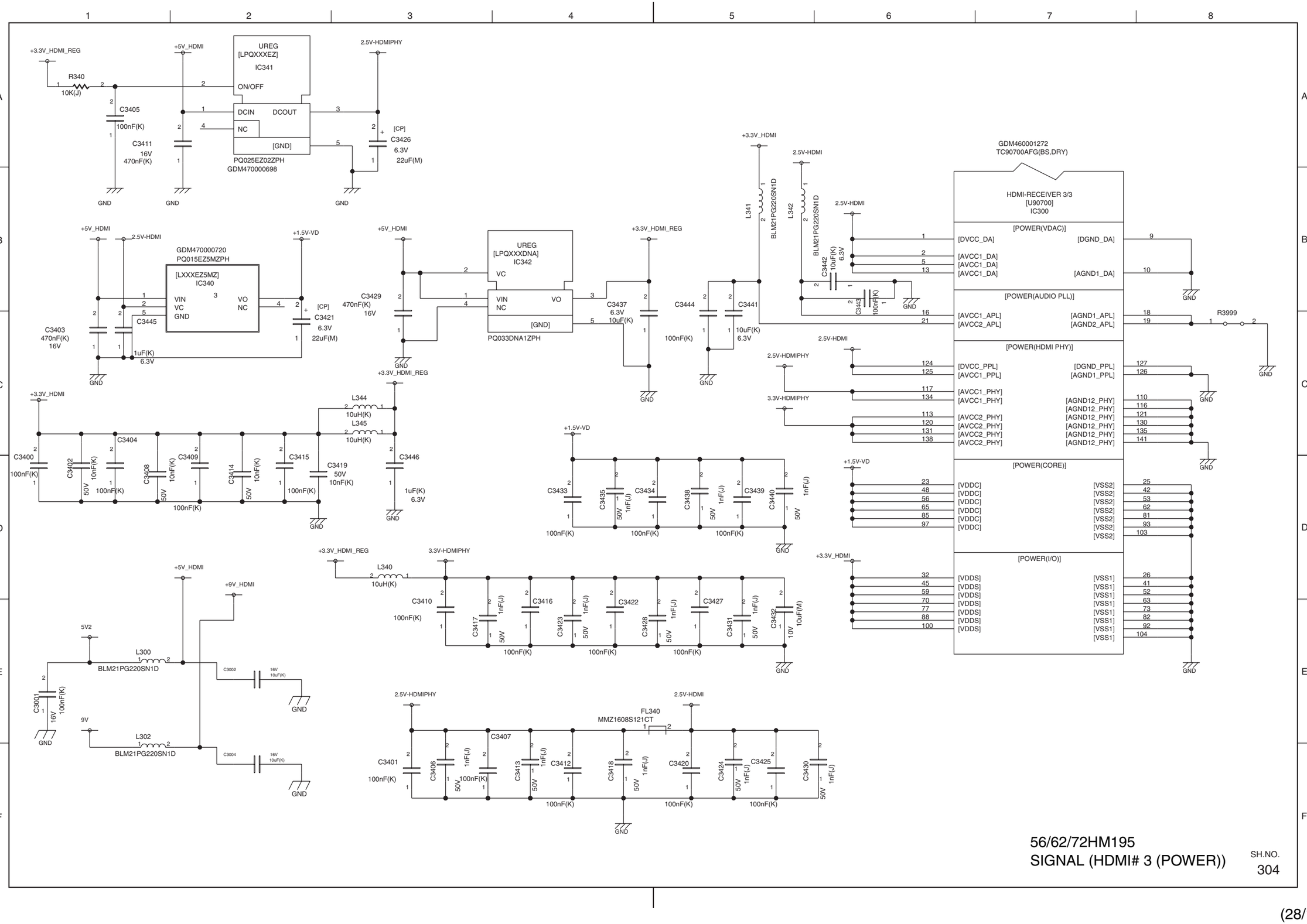

[U8532]
3/9
IC700
RM316
RM317
RM318
RM319
RM320
RM321
RM322
RM323
RM324
RM325
RM326
RM327
RM344
RM345
RM346
RM347
RM349
RM315
SEINEC0
SEINEC1
SEINEC2
SEINEC3
SEINEC4
SEINEC5
SEINEC6
SEINEC7
SEINEY0
SEINEY1
SEINEY2
SEINEY3
SEINEY4
SEINEY5
SEINEY6
SEINEY7
905:3E
905:3F
905:3C
905:3D
905:2B
D_SEINEC0
D_SEINEC1
D_SEINEC2
D_SEINEC3
D_SEINEC4
D_SEINEC5
D_SEINEC6
D_SEINEC7
D_SEINEY0
D_SEINEY1
D_SEINEY2
D_SEINEY3
D_SEINEY4
D_SEINEY5
D_SEINEY6
D_SEINEY7
CD_DATAB0
CD_DATAB1
CD_DATAB2
CD_DATAB3
CD_DATAB4
CD_DATAB5
CD_DATAB6
CD_DATAB7
CD_H D
CD_VD
D_SEINEH S
D_SEINEVS
D_SEINECLK
D_BTXD
D_BRXD
D_HEAD_DB
BTXD
BRXD
HEAD_DB
400:8A;600:2C
400:3D;600:2D
400:4C
300:4E
MSP_RESET
TV_SYNC_DET
SEINEHS
SEINEVS
SEINECLK
IPCLK2
W224
W233
W232
W231
R310
R313
NOT MOUNT
GND
56(J)
0(X)
10K(J)
33(J)
BDATA0/DOBLU0
BDATA1/DOBLU1
BDATA2/DOBLU2
BDATA3/DOBLU3
BDATA4/DOBLU4
BDATA5/DOBLU5
BDATA6/DOBLU6
BDATA7/DOBLU7
BDATA8/DOGRN0
BDATA9/DOGRN1
BDATA10/DOGRN2
BDATA11/DOGRN3
BDATA12/DOGRN4
BDATA13/DOGRN5
BDATA14/DOGRN6
BDATA15/DOGRN7
BDATA16/DORED0
BDATA17/DORED1
BDATA18/DORED2
BDATA19/DORED3
BDATA20/DORED4
BDATA21/DORED5
BDATA22/DORED6
BDATA23/DORED7
DIP_BODD
BVS
BH S
BHREF_DE
56/62/72HM195
SIGNAL (FLI8532 DIGITAL_IN_B)
SH.NO.
301


IC320
BD4740G-TR
[L47XX]
SUB
VOUT
[VCC]
[GND]
NC
+5V_HDMI
+3.3V_HDMI
+3.3V_HDMI
L320
MMZ1608S121CT
C384
1uF(K)
C327
100nF(K)
C328
180pF(J)
50V
R3222
1K(J)
R3223
100(J)
C329
100nF(K)
HDMI_RST
401:5B
&
[7S08]
IC321
[Vcc]
[Vss]
TC7S08FU(TE85L,F)
R3224
100(J)
+3.3V_HDMI
NOT MOUNT
[RMX4A]
RM328
W323
100(J)
W324
100(J)
SCL1
SDA1
GDM460001272
TC90700AFG(BS,DRY)
HDMI-RECEIVER 1/3
[U90700]
IC300
SCL_H
SDA_H
SMODE
TEST3
TEST2
TEST1
RESET
HINT
R3215
47(J)
HINT
308:2E
PORT#A
[C19A4]
CN320
D2+
D2S
D2-
D1+
D1S
D1-
D0+
D0S
D0-
CLK +
CLK S
CLK -
(CEC)
NC
SCL
SDA
GND
PWR
DET
V_RXA2N
V_RXA2P
200:4D;205:2A;308:3A;
400:3E;404:2D;601:3A
C3210
00nF(K)
[FL09B]
FL323
V_RXA1P
V_RXA1N
FL329
200:4D;205:2A;308:3A;
400:3E;404:2D;601:3A
[FL09B]
FL324
V_RXA0N
V_RXA0P
FL330
308:1B
308:1D
HDMI_PWRA
HDMI_HPDA
FL322
MZA3216R121AT
+3.3V_HDMI
R3204
47K(J)
R3205
47K(J)
SCL_E
SDA_E
SCL_K
SDA_K
[EDID IF/Kdvs IF]
[DDC A/B]
SCL_DDCA
SDA_DDCA
SCL_DDCB
SDA_DDCB
[Link Port A/B]
RXACN
RXACP
RXA0N
RXA0P
RXA1N
RXA1P
RXA2N
RXA2P
RRES_PA
VREF_PA
RRES_PB
VREF_PB
[ANALOGUE VIDEO PORT]
YP
YN
PBP
PBN
PRP
PRN
VBS
VREF
IREF
HBLANK
VBLANK
HSYNC
VSYNC
DC1R019JD1E400
R3216
1K(J)
NOT MOUNT
R3200
R3201
47K(J)
GND
3.3V-HDMIPHY
R3208
1K(J)
R3210
1K(J)
R3209
1K(J)
R3211
1K(J)
2.5V-HDMI
C320
100nF(K)
C321
100nF(K)
C322
100nF(K)
R3214
300(F)
W325
0(X)
C323
100nF(K)
C325
50V
10nF(K)
W326
0(X)
C324
100nF(K)
C326
50V
10nF(K)
R3218
33(J)
R3219
NOT MOUNT
R3220
NOT MOUNT
R3221
33(J)
R3227
NOT MOUNT
R3228
NOT MOUNT
R3225
33(J)
R3226
33(J)
R3230
47(J)
R3231
NOT MOUNT
R3232
47(J)
R3233
NOT MOUNT
HSYNC
VSYNC
HDMIH
HDMIV
DVI_H
DVI_V
300:4D
409:2D
409:2E
514:3D
PORT#B
[C19A4]
CN321
+W320
0(X)
FL320
V_RXB2P
V_RXB2N
FL325
[FL09B]
FL331
V_RXB1N
V_RXB1P
FL326
V_RXB0P
V_RXB0N
[FL09B]
FL332
V_RXBCN
V_RXBCP
FL327
MZA3216R121AT
R3202
247K(J)
R3203
NOT MOUNT
R3217
1K(J)
308:1C
56/62/72HM195
SIGNAL (HDMI# 1 (Link, I2C))
SH.NO.
302



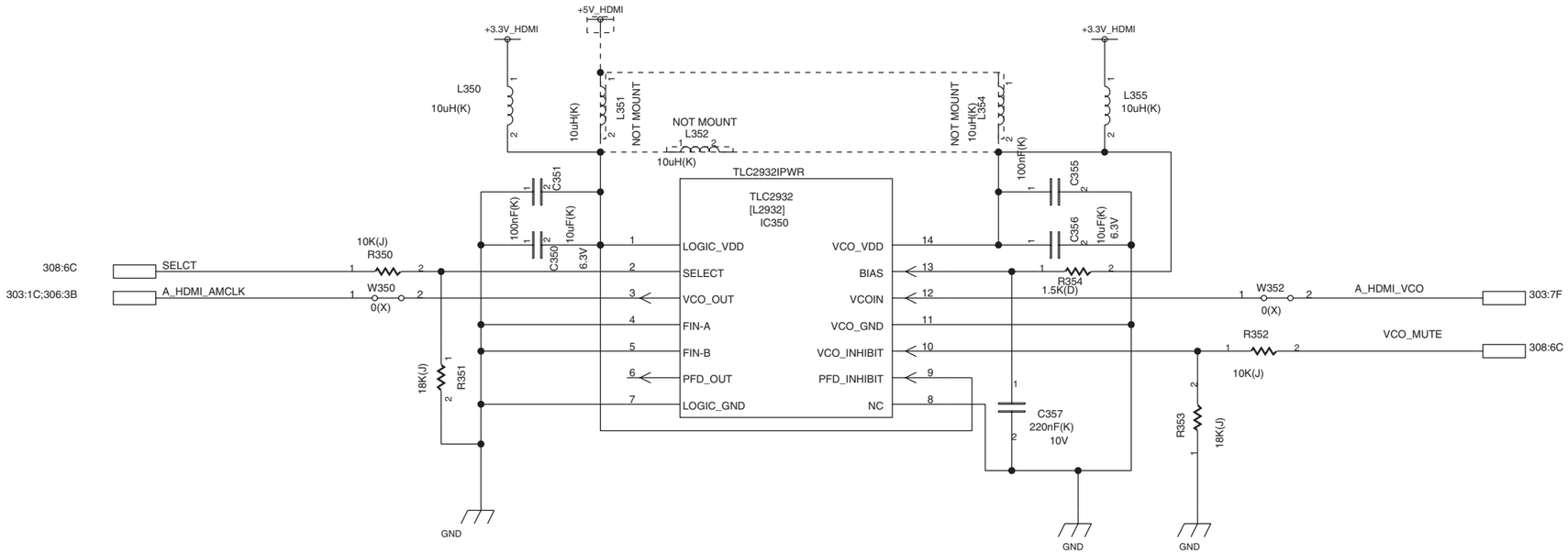
56/62/72HM195
SIGNAL (HDMI# 2 (Video/ Audio))

SH.NO.
303



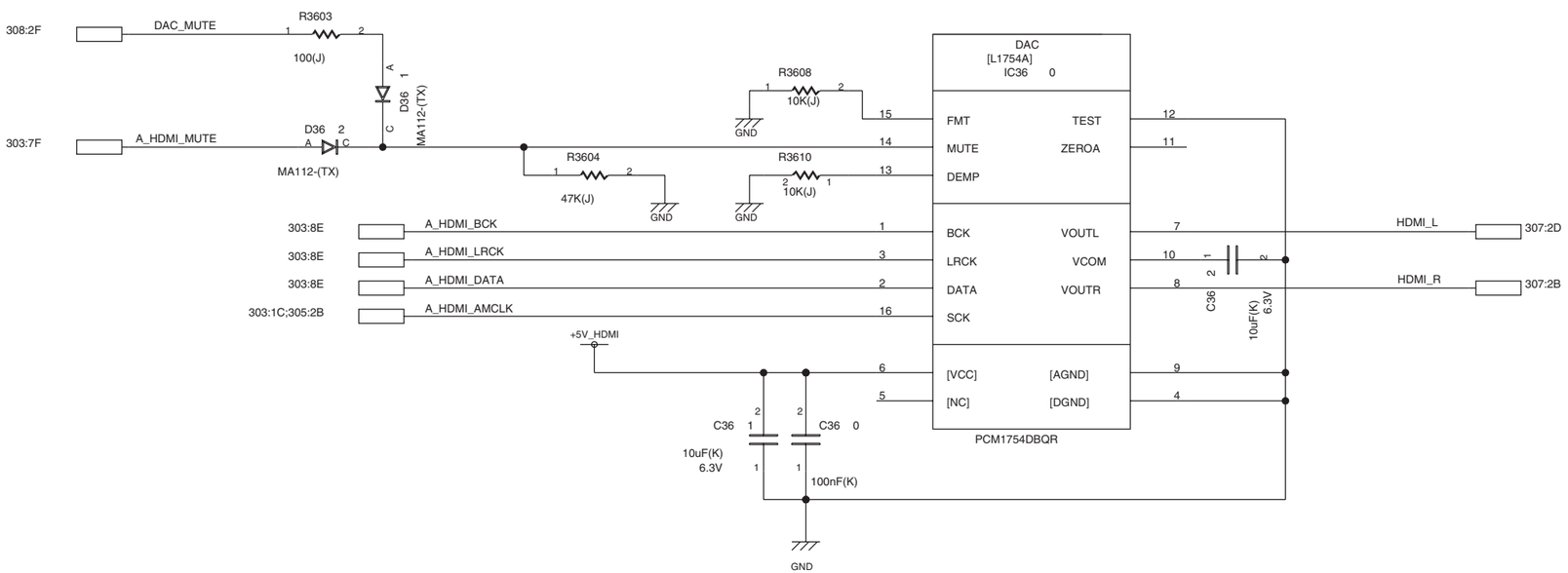
56/62/72HM195
SIGNAL (HDMI# 3 (POWER))

SH.NO.
304



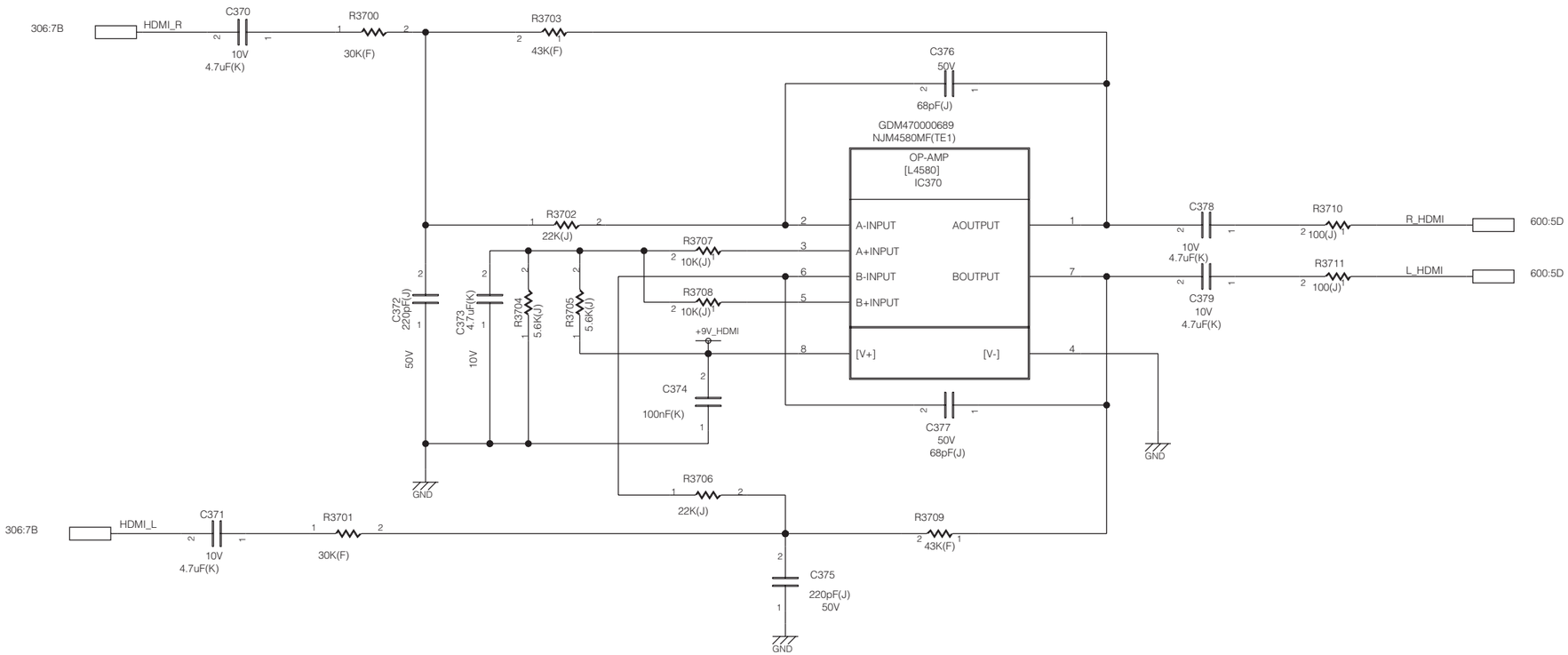
56/62/72HM195
SIGNAL (HDMI AUDIO_ PLL)

SH.NO.
305



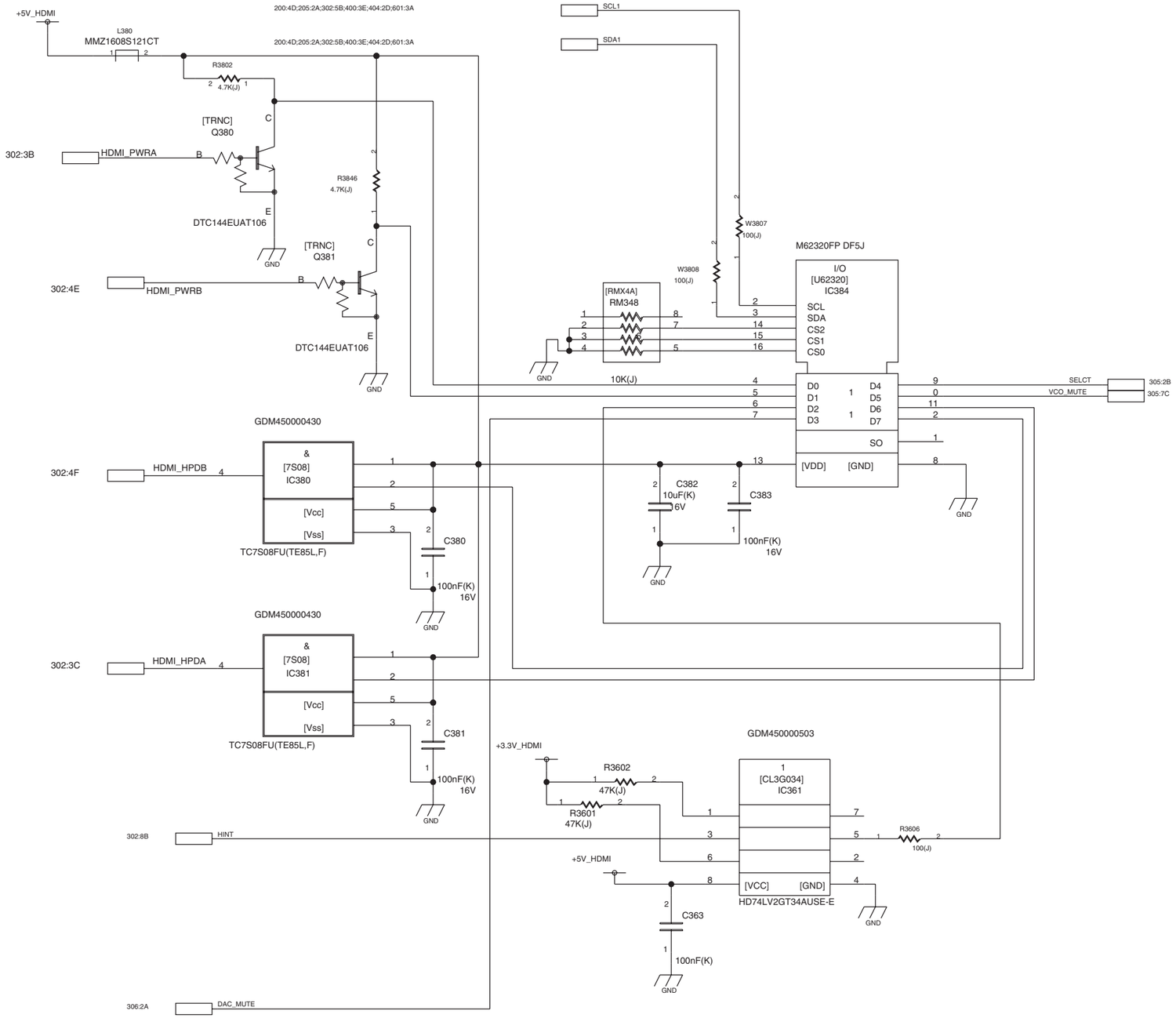
56/62/72HM195
SIGNAL (HDMI AUDIO_ DAC)

SH.NO.
306



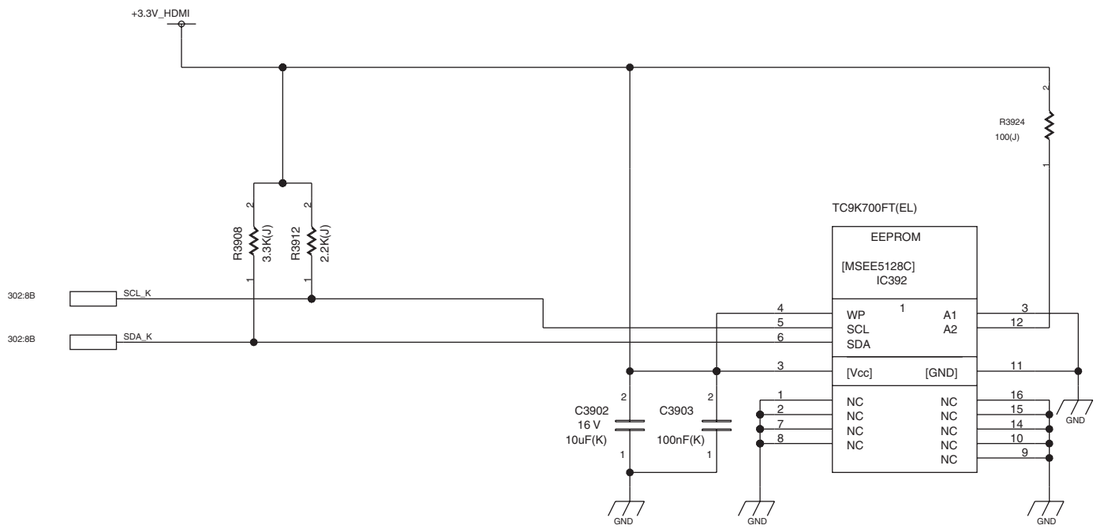
56/62/72HM195
SIGNAL (HDMI AUDIO_ OUT)

SH.NO.
307



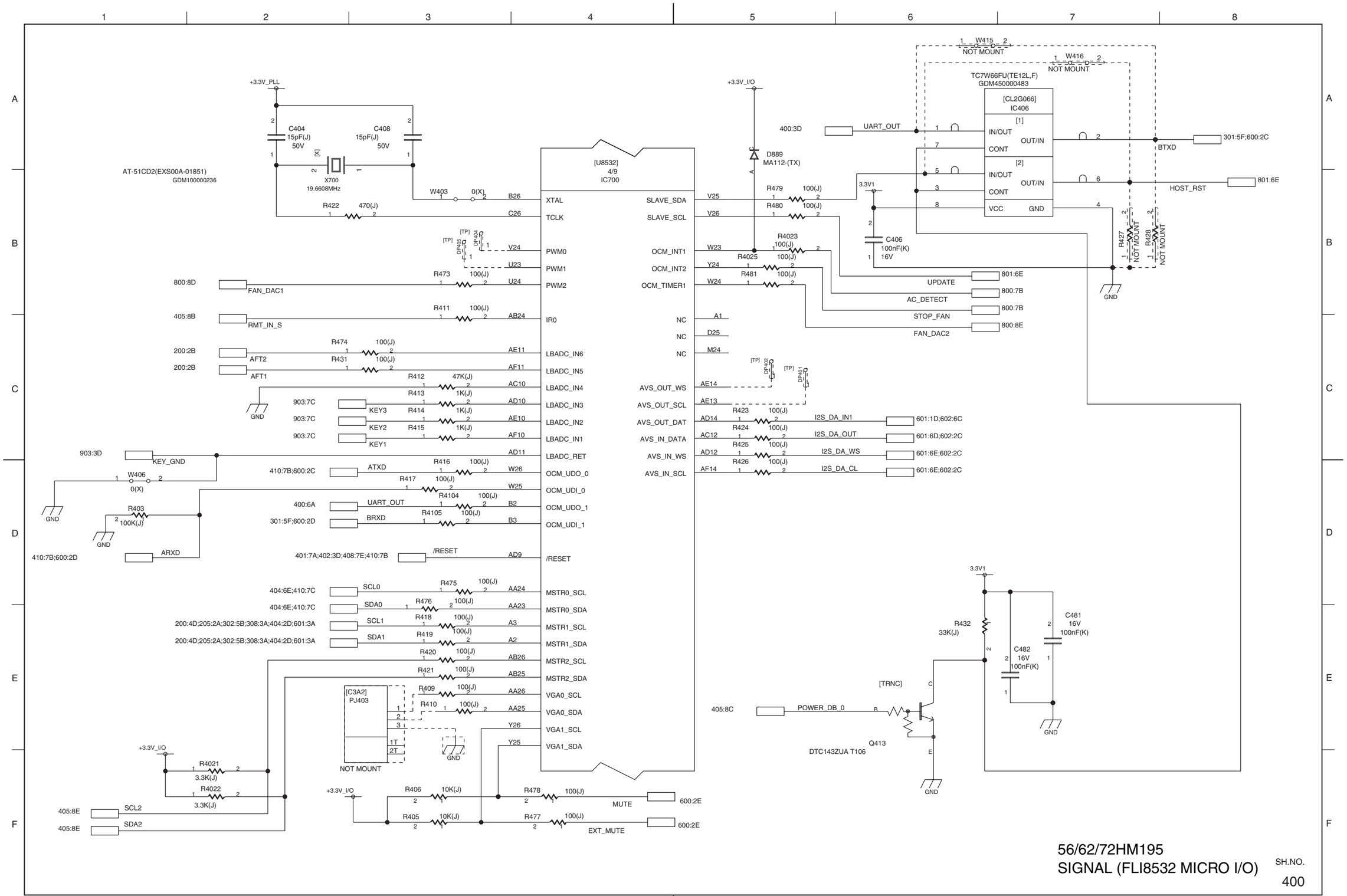
56/62/72HM195
SIGNAL (HDMI CONTROLLER)

SH.NO.
308



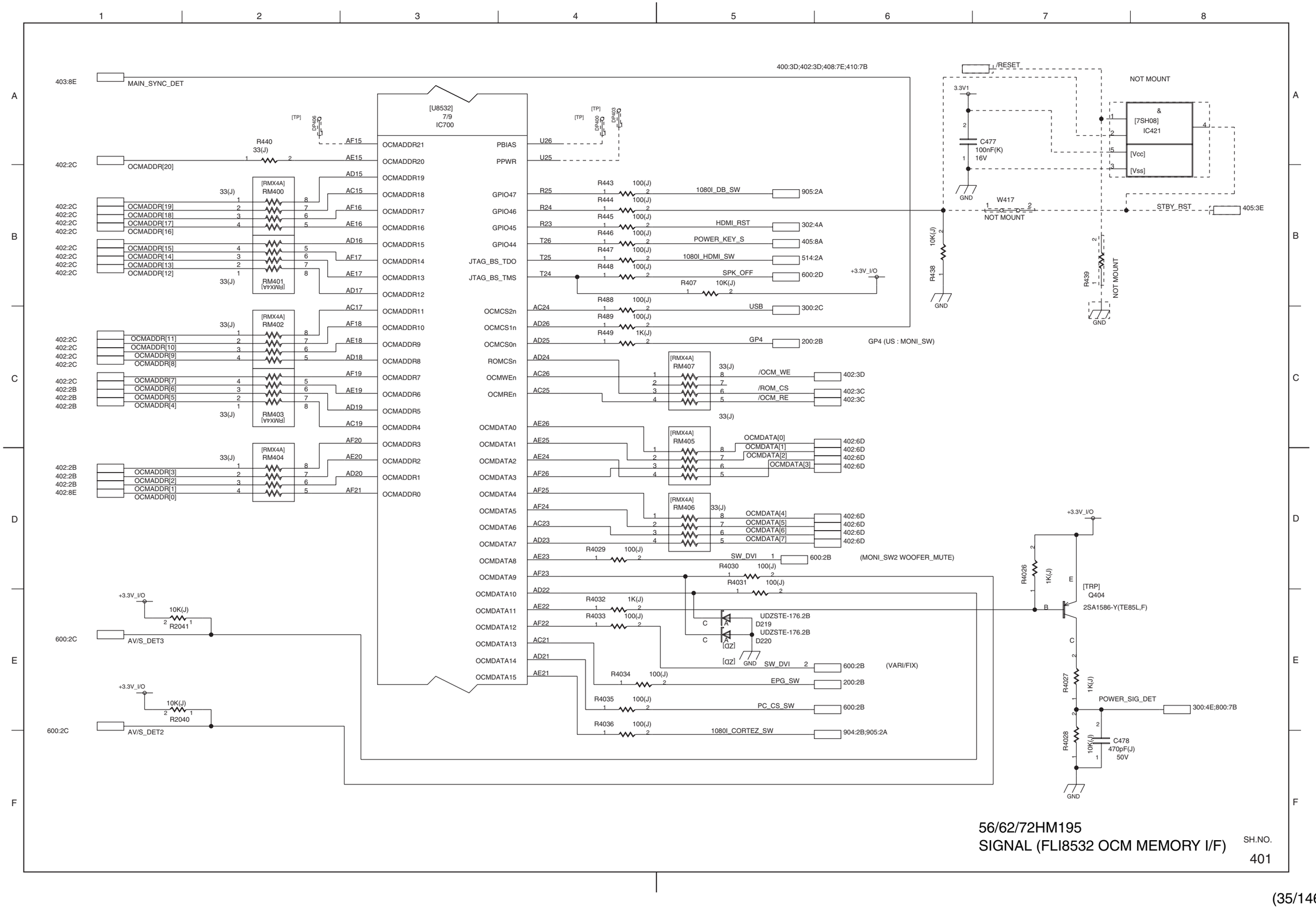
56/62/72HM195
SIGNAL (HDMI EEPROM2)

SH.NO.
309



56/62/72HM195
SIGNAL (FLI8532 MICRO I/O)

SH.NO.
400

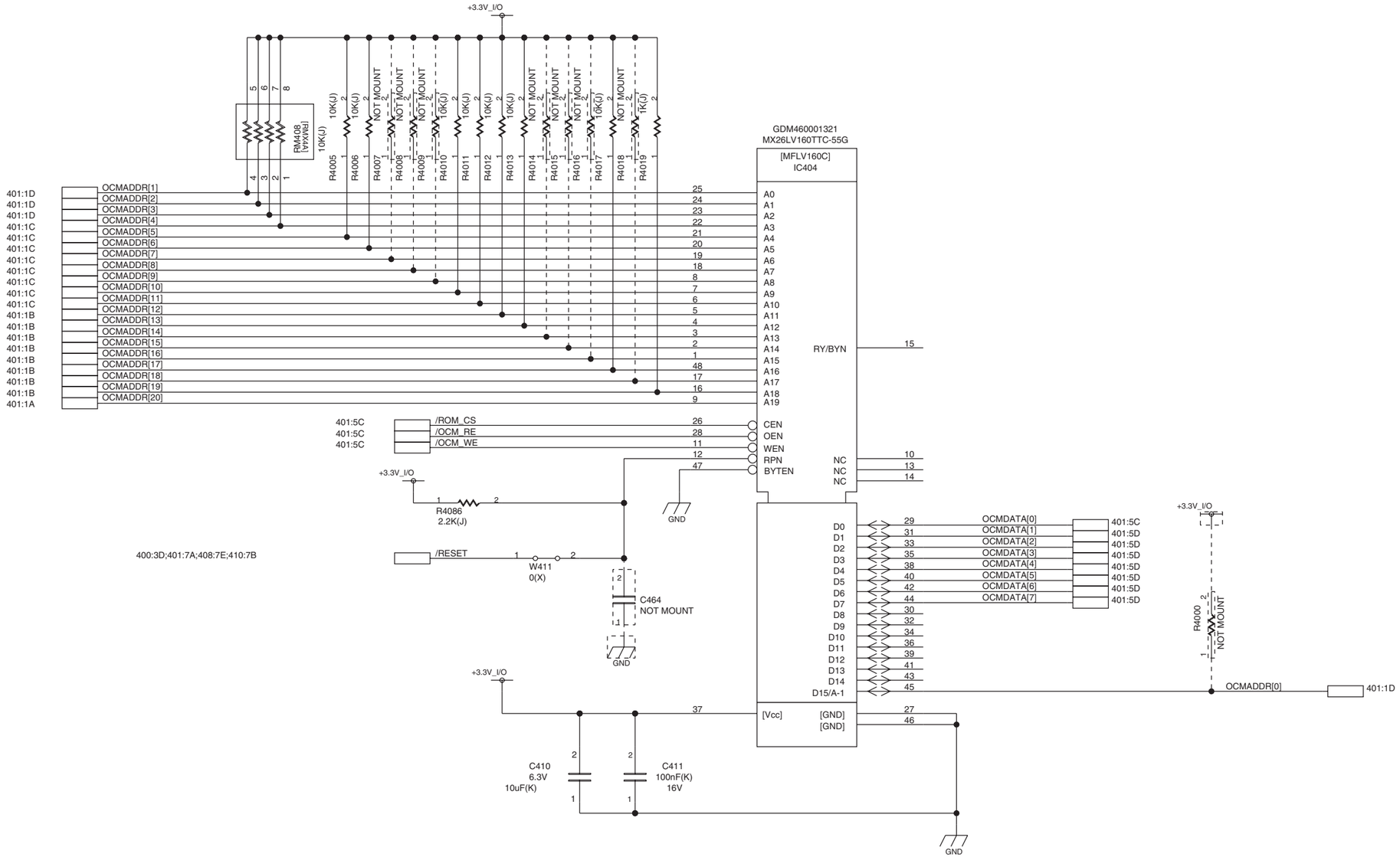


56/62/72HM195

SIGNAL (FLI8532 OCM MEMORY I/F)

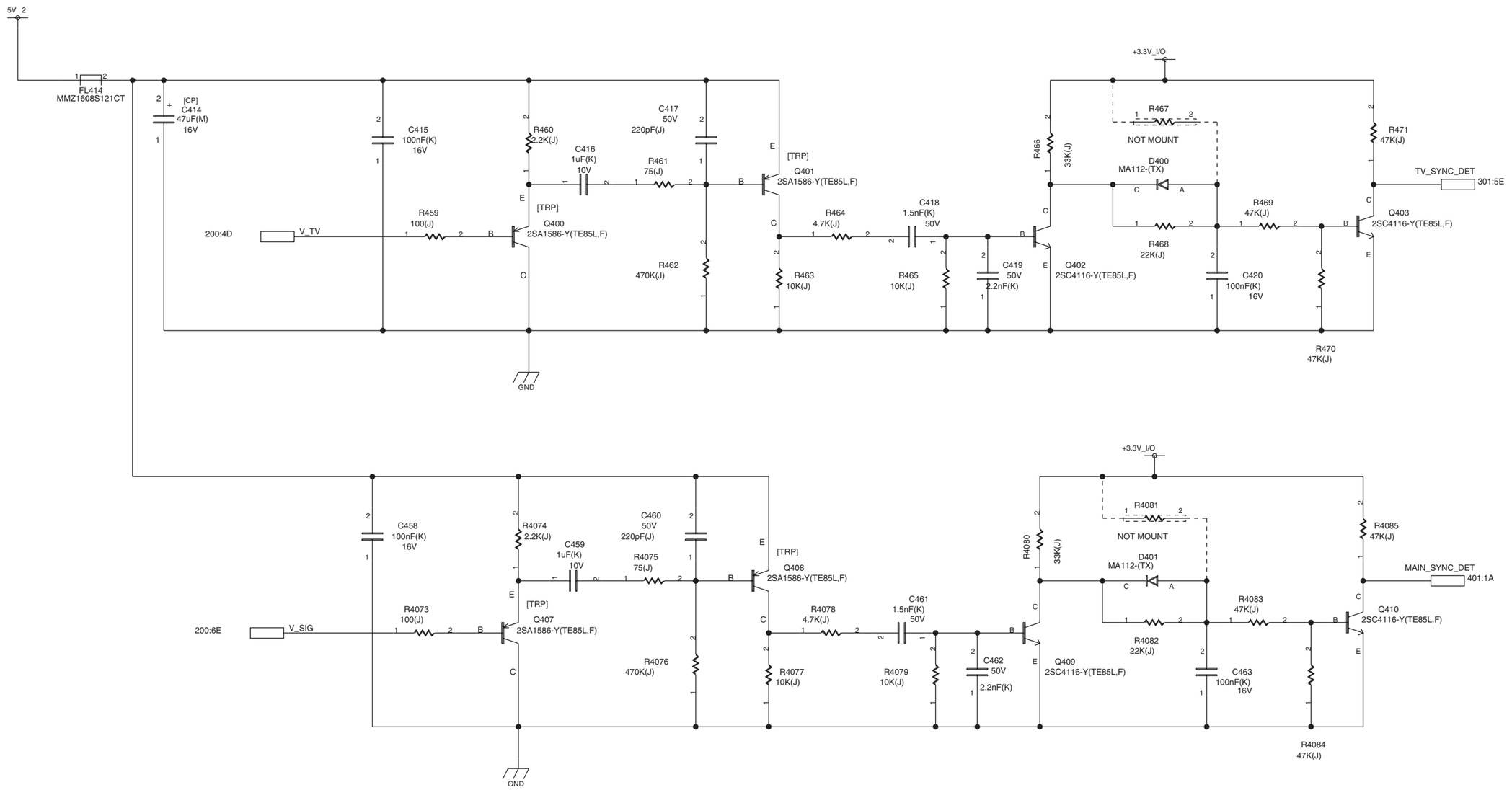
SH.NO.

401



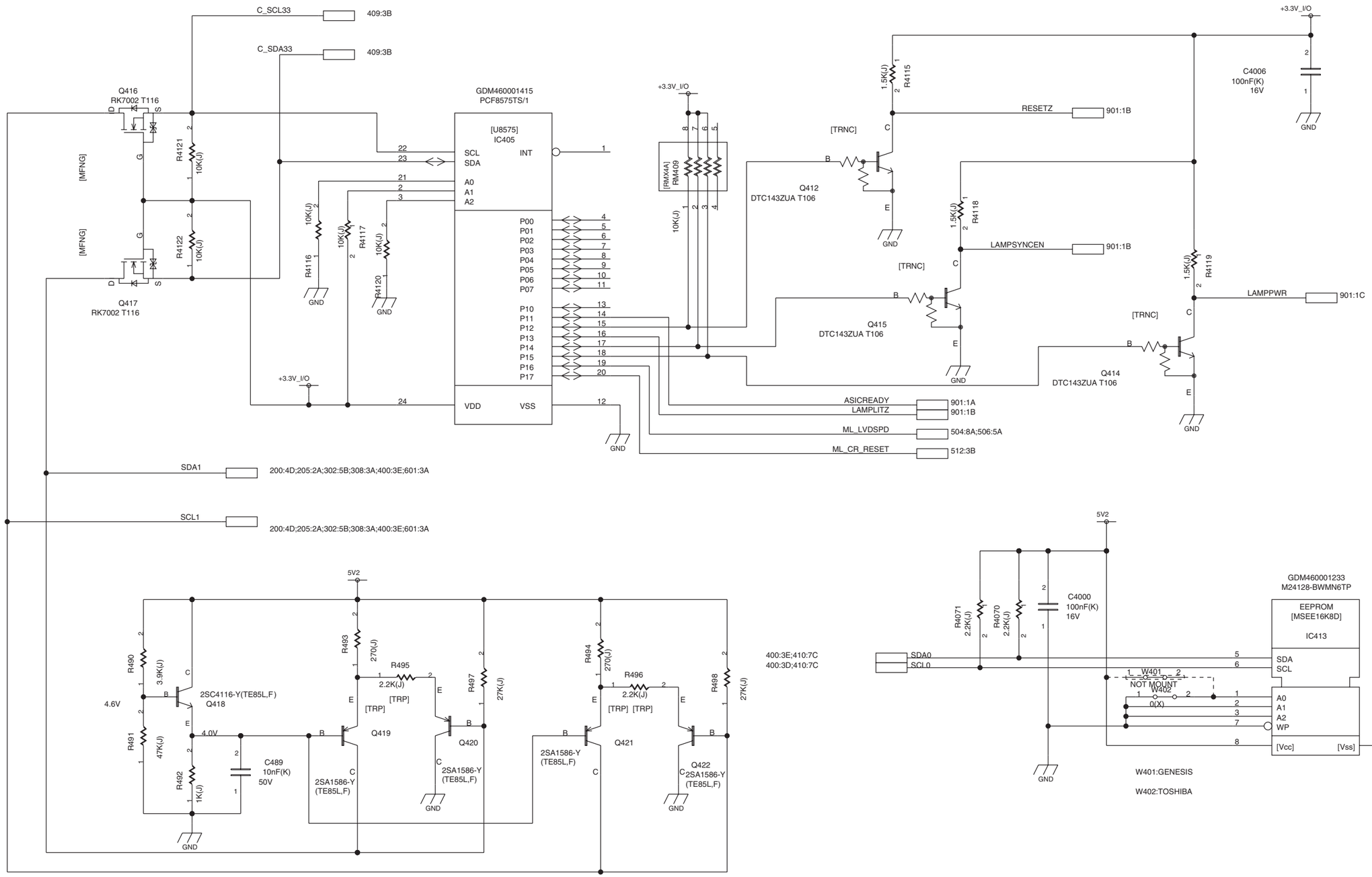
56/62/72HM195
SIGNAL (FLASH MEMORY)

SH.NO
402



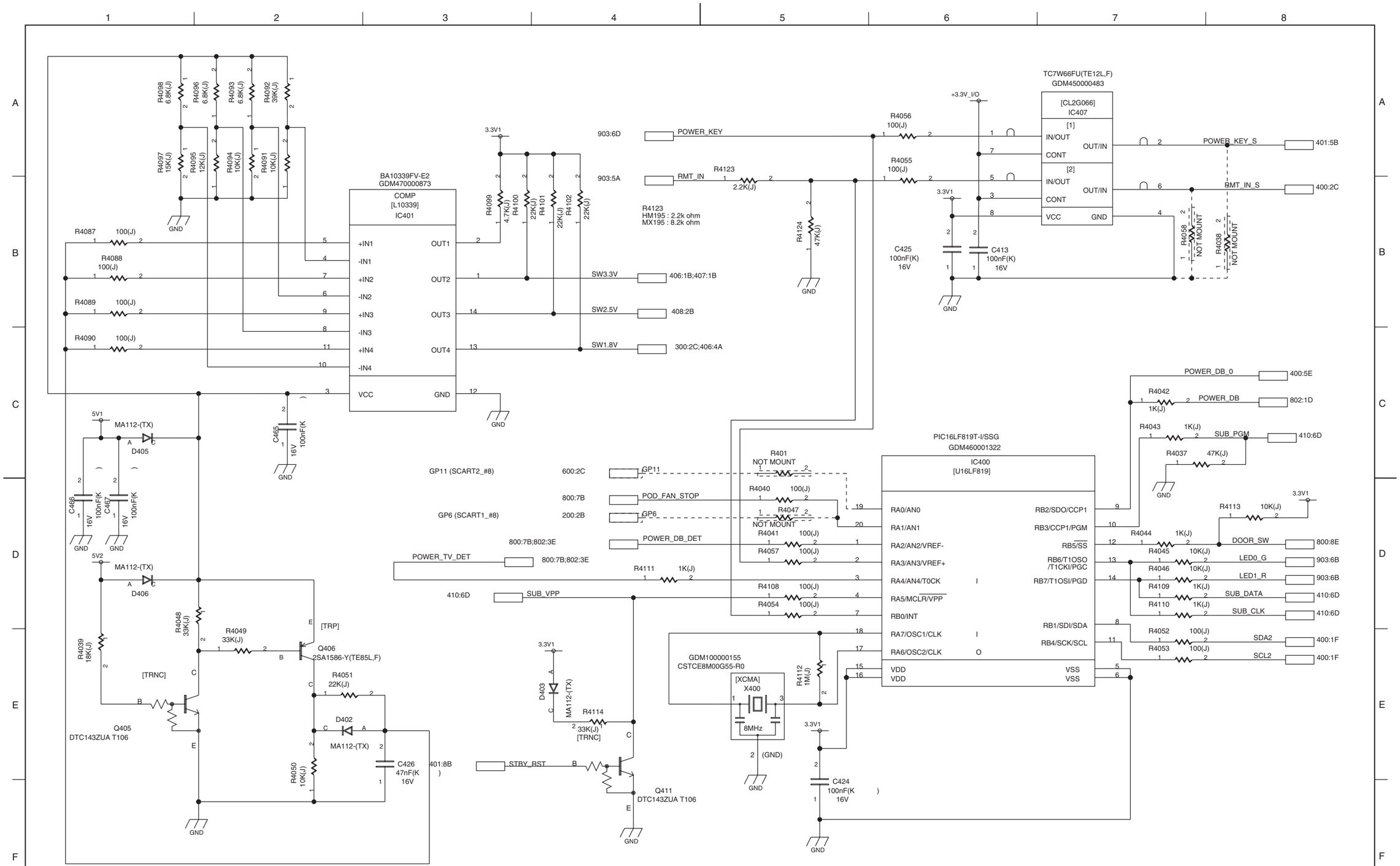
56/62/72HM195
SIGNAL (SYNC SEPA)

SH.NO.
403



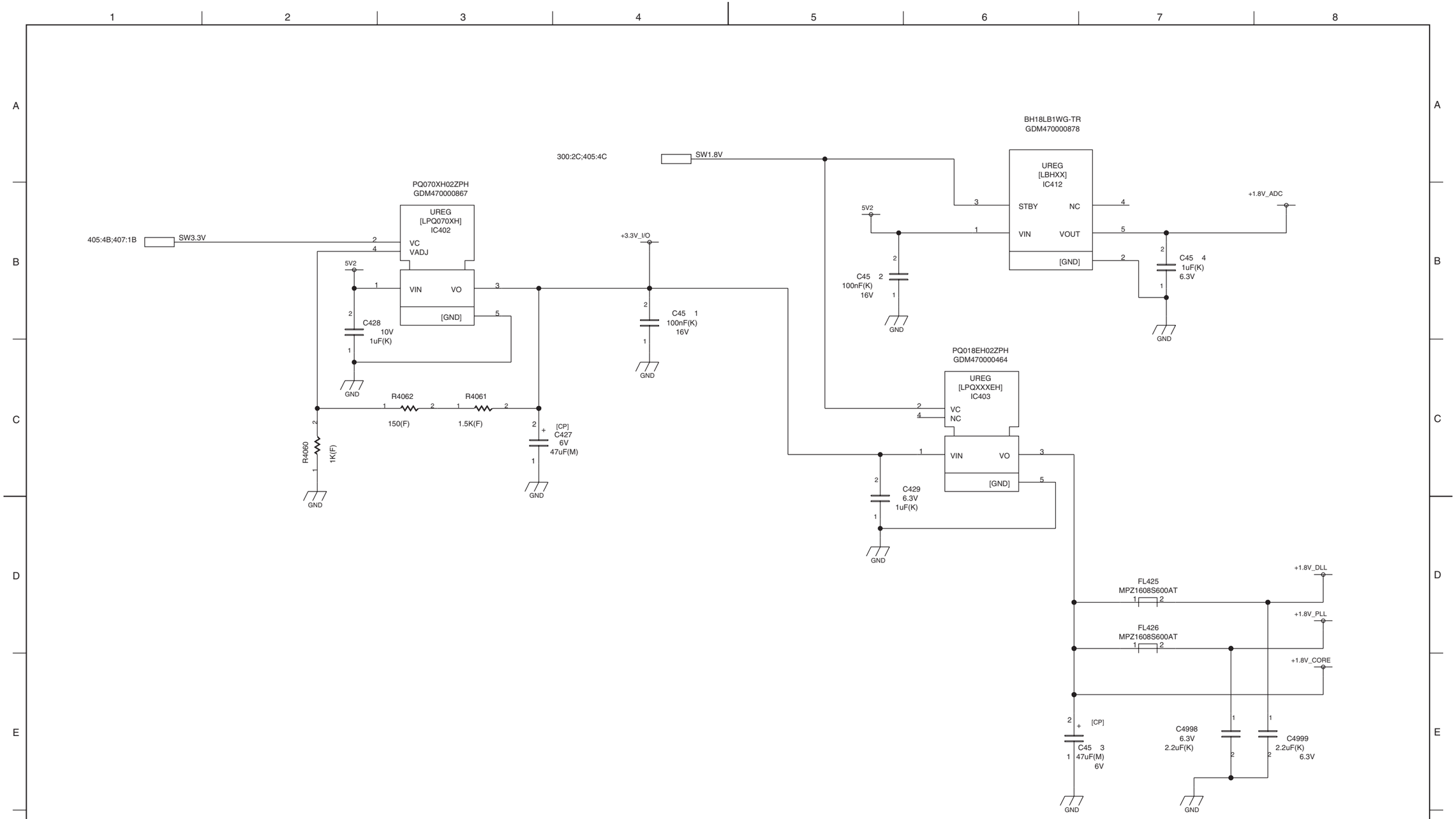
56/62/72HM195
SIGNAL (I/O_ EXPANDER/E2P ROM)

SH.NO.
404



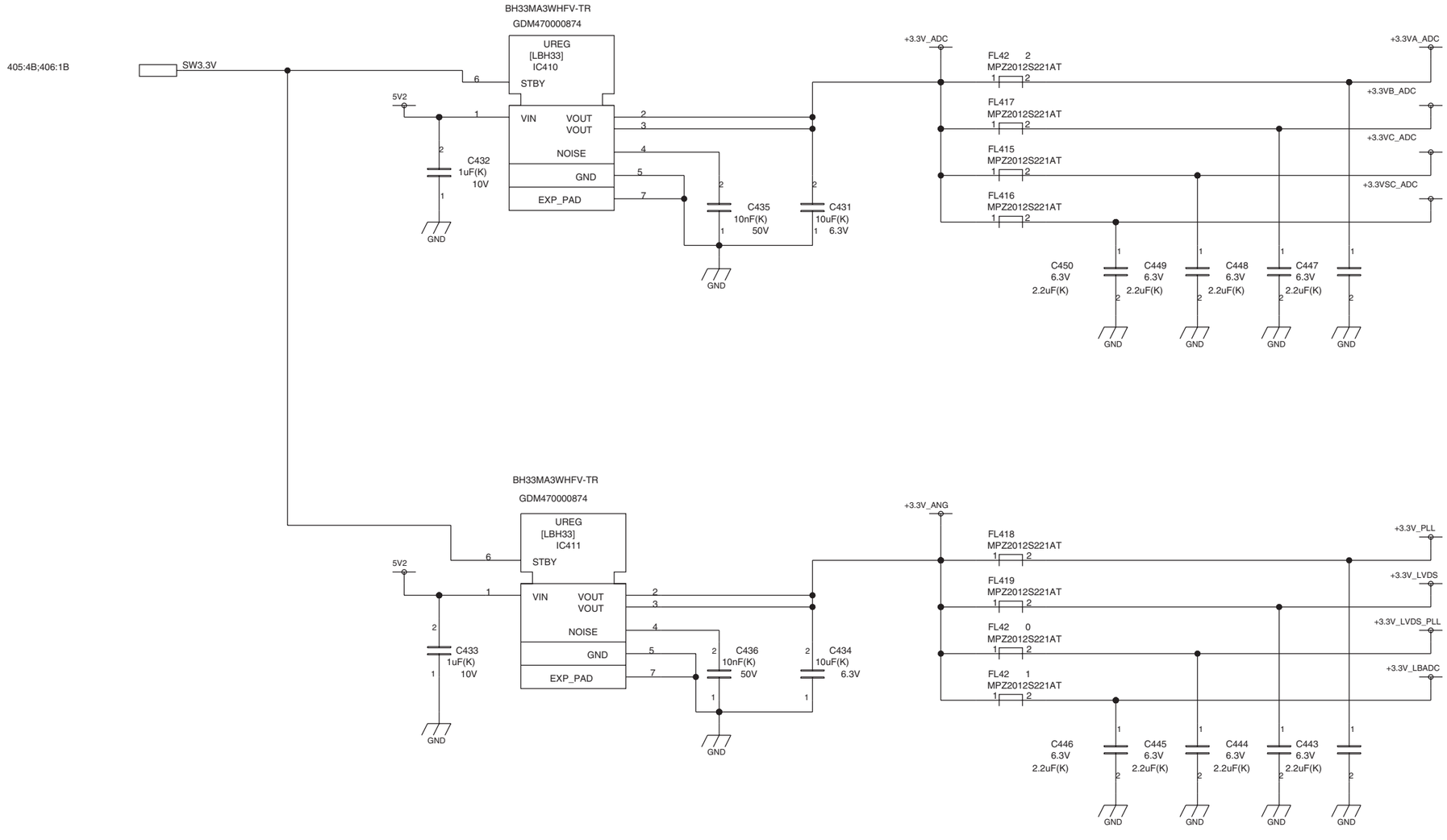
56/62/72HM195
SIGNAL (STD-BY MICOR)

SH.NO.
405



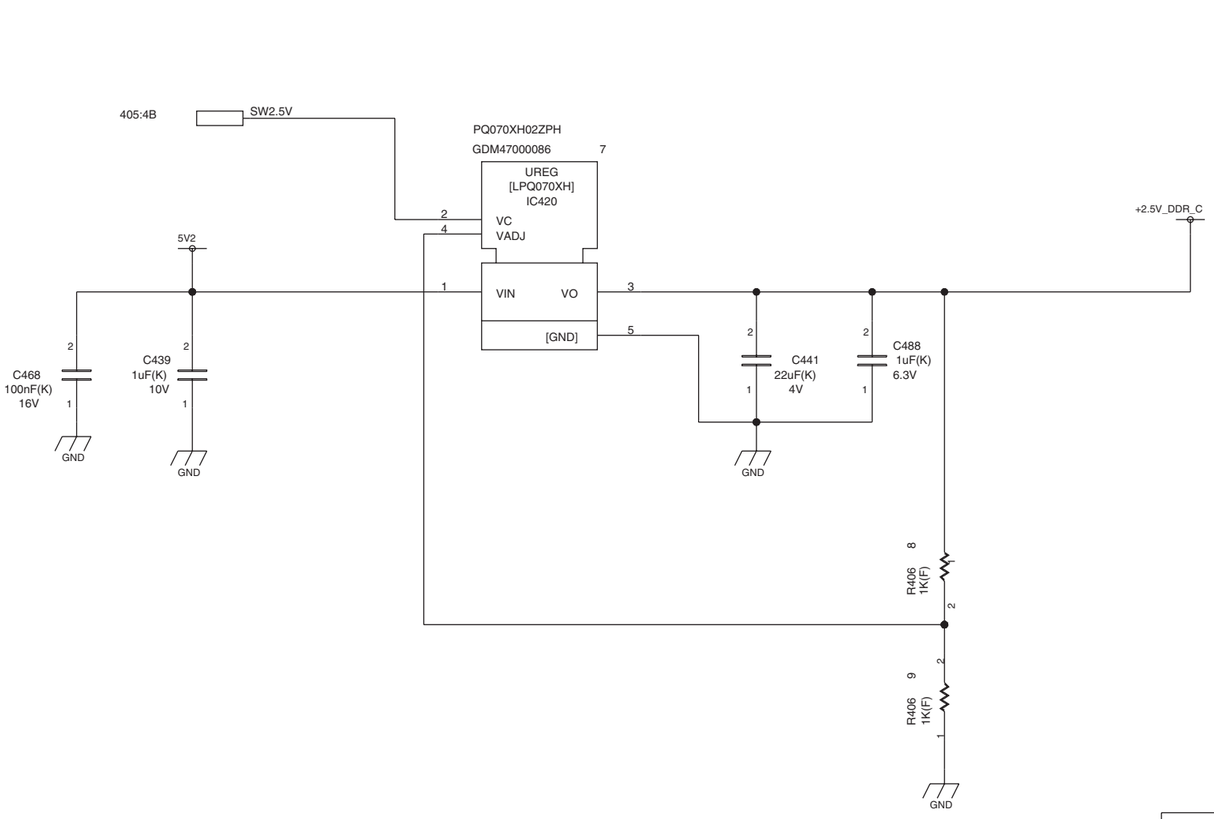
56/62/72HM195
SIGNAL (CORTEZ REG 1)

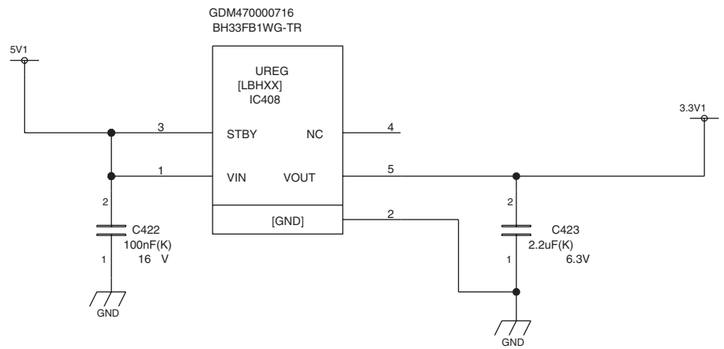
SH.NO.
406

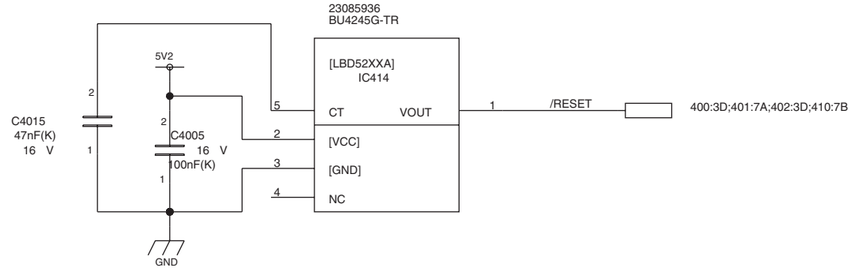


56/62/72HM195
SIGNAL (CORTEZ REG 2)

SH.NO.
407

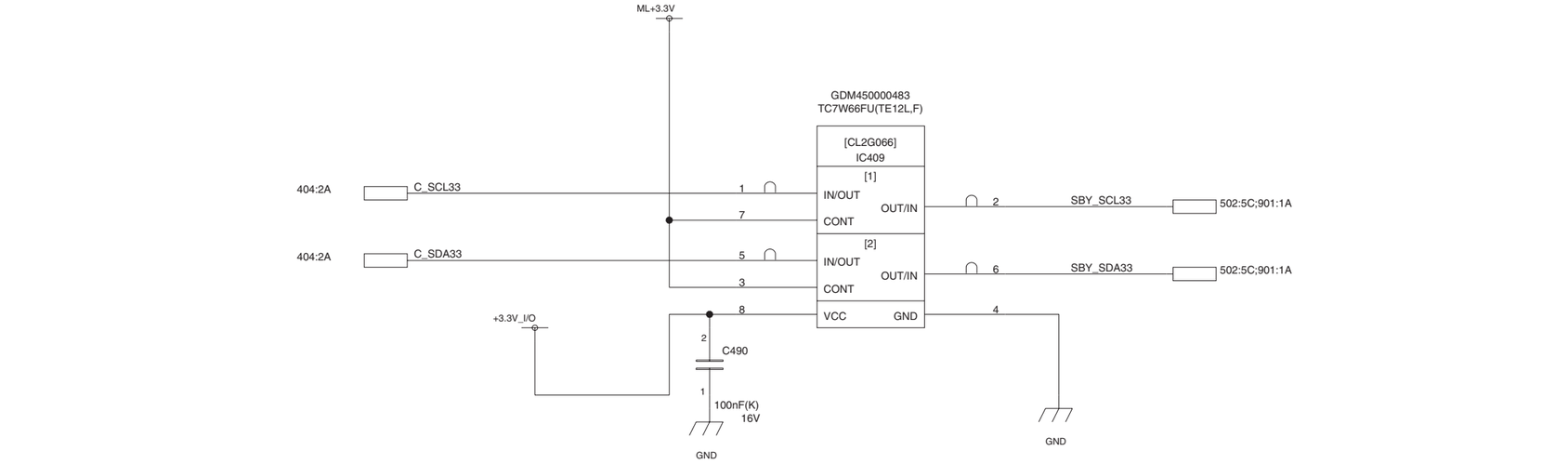


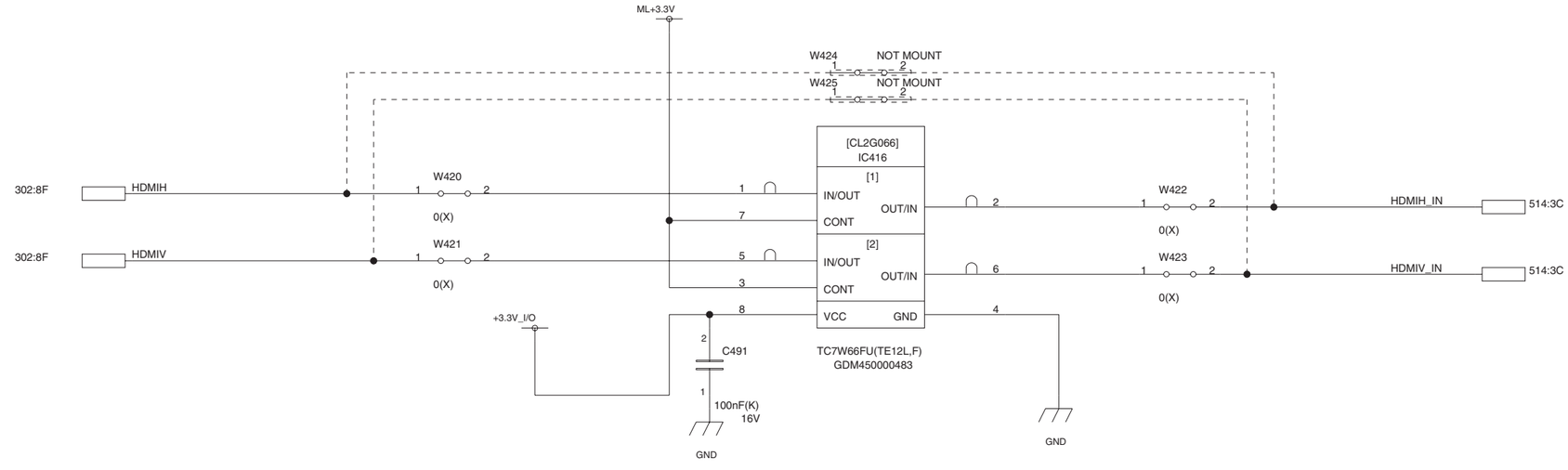




56/62/72HM195
SIGNAL (CORTEZ REG 3)

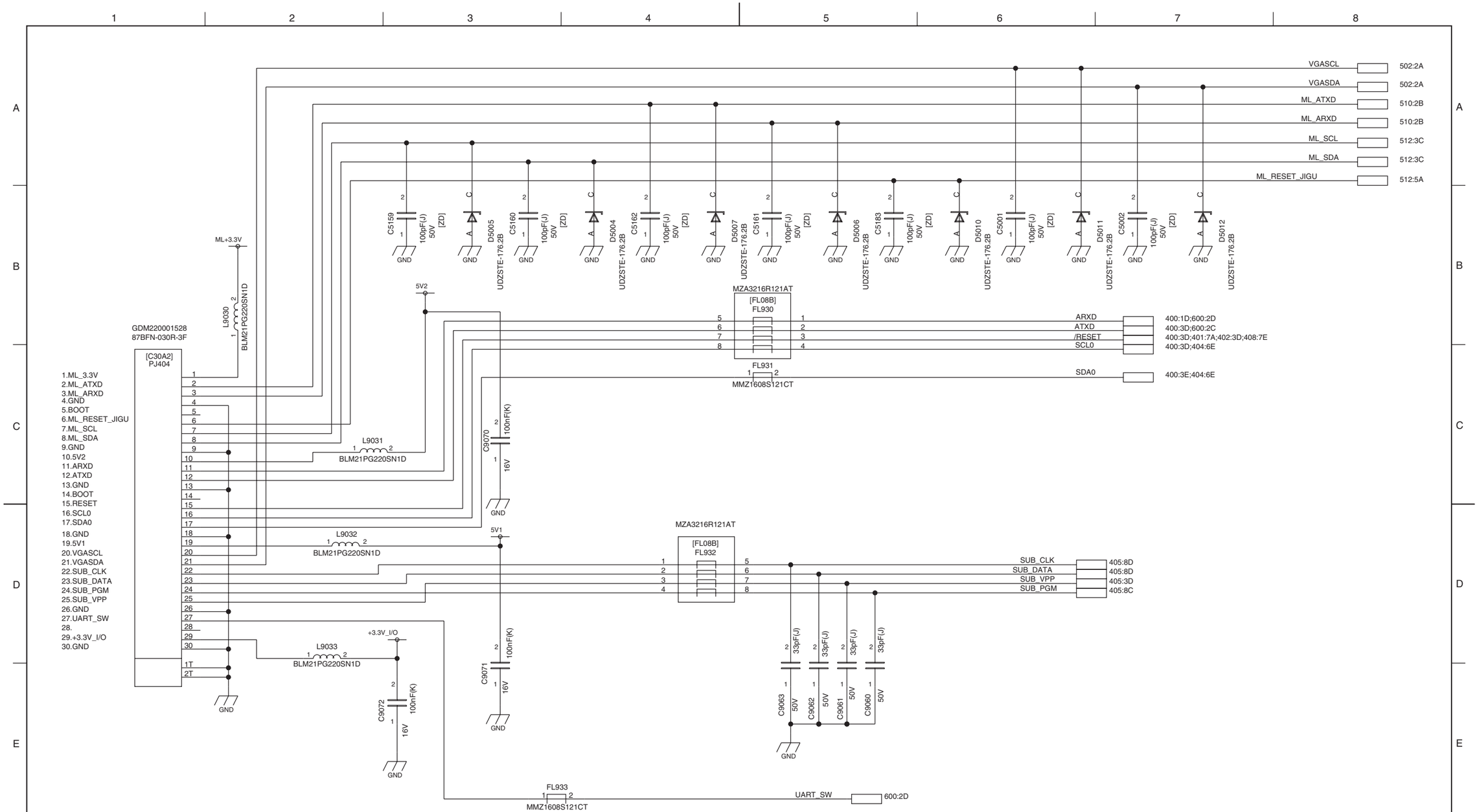
SH.NO.
408





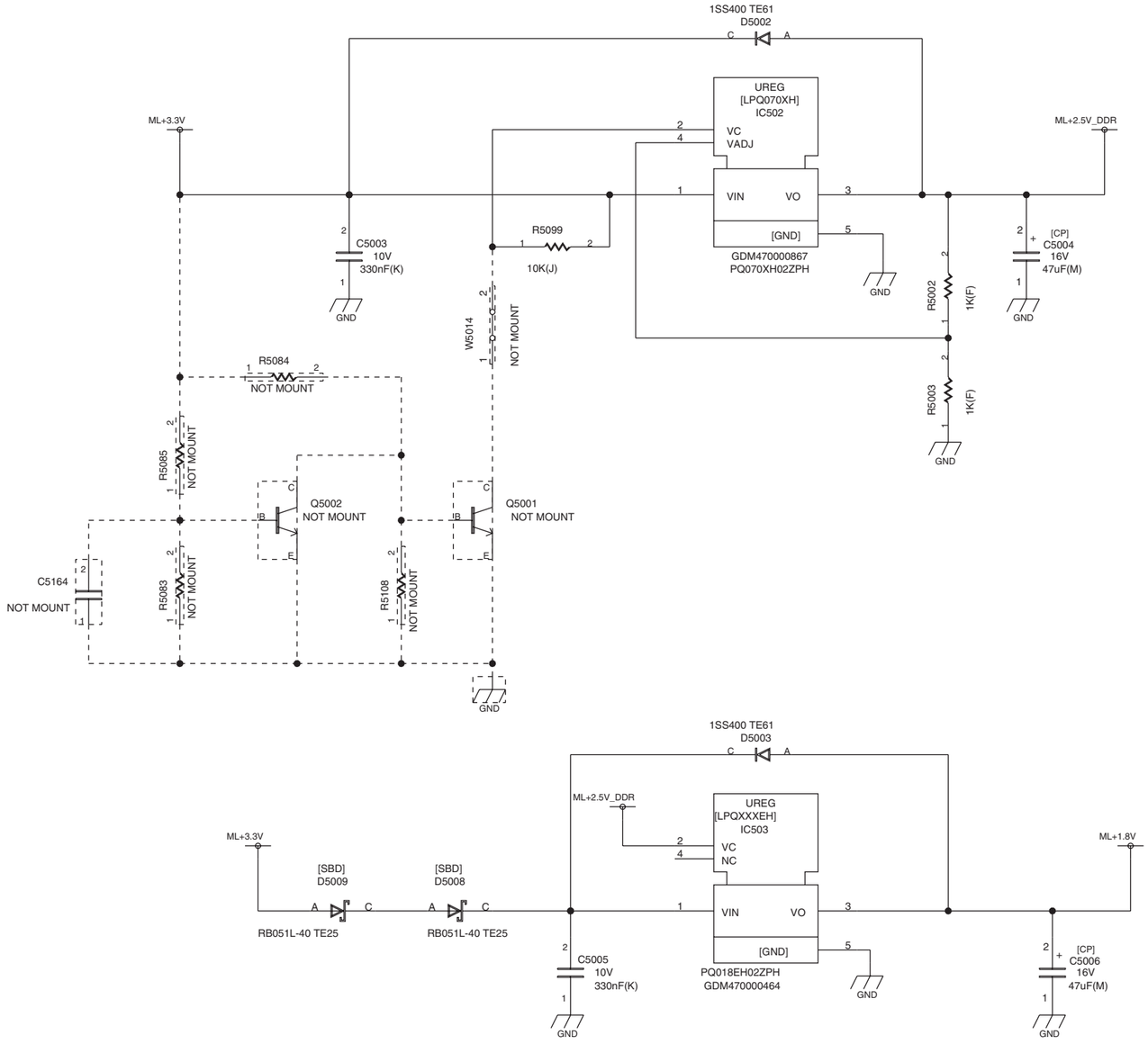
56/62/72HM195
SIGNAL (I2C Switch)

SH.NO.
409



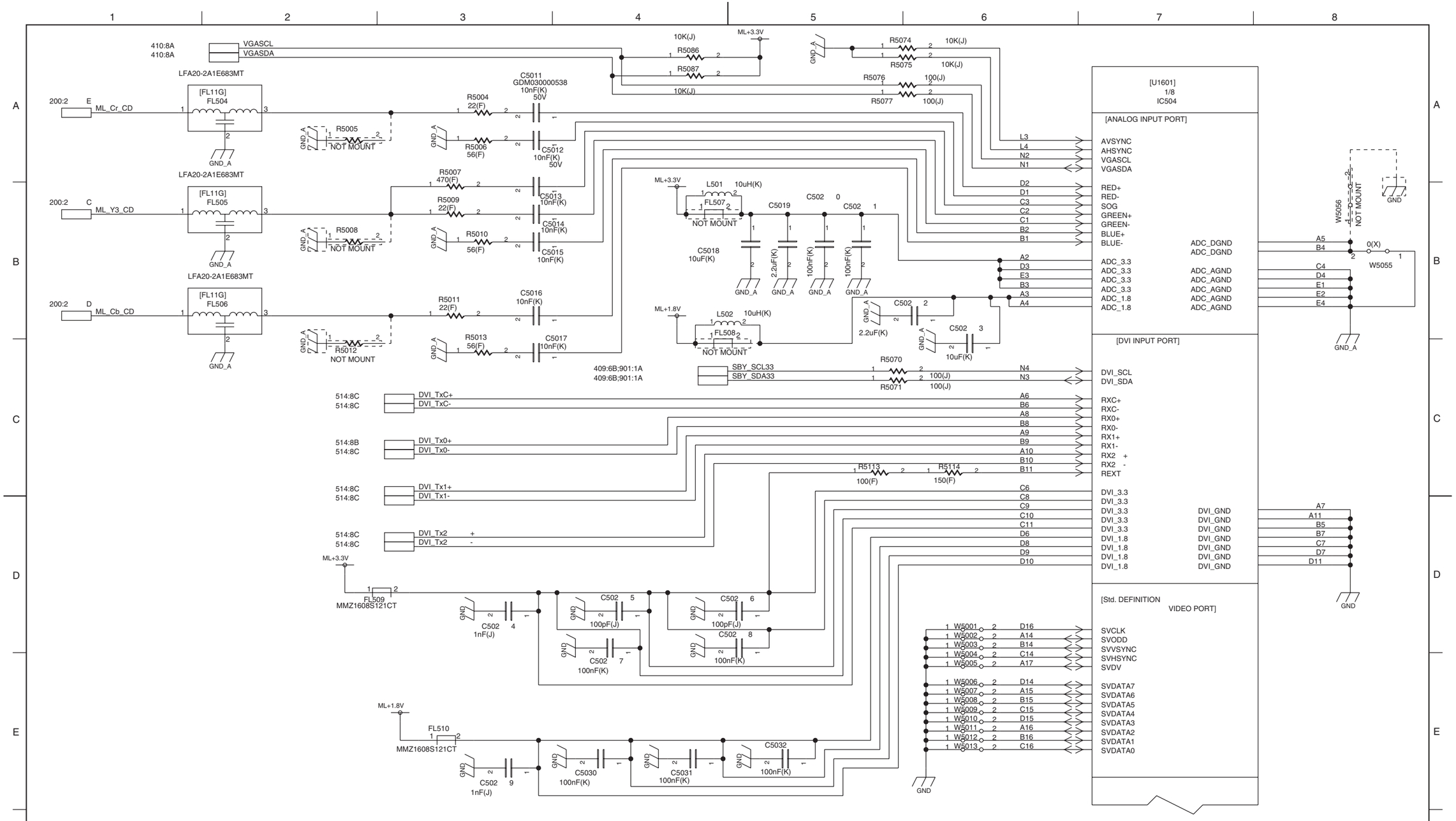
56/62/72HM195
SIGNAL (SERVICE CONNECTOR)

SH.NO.
410



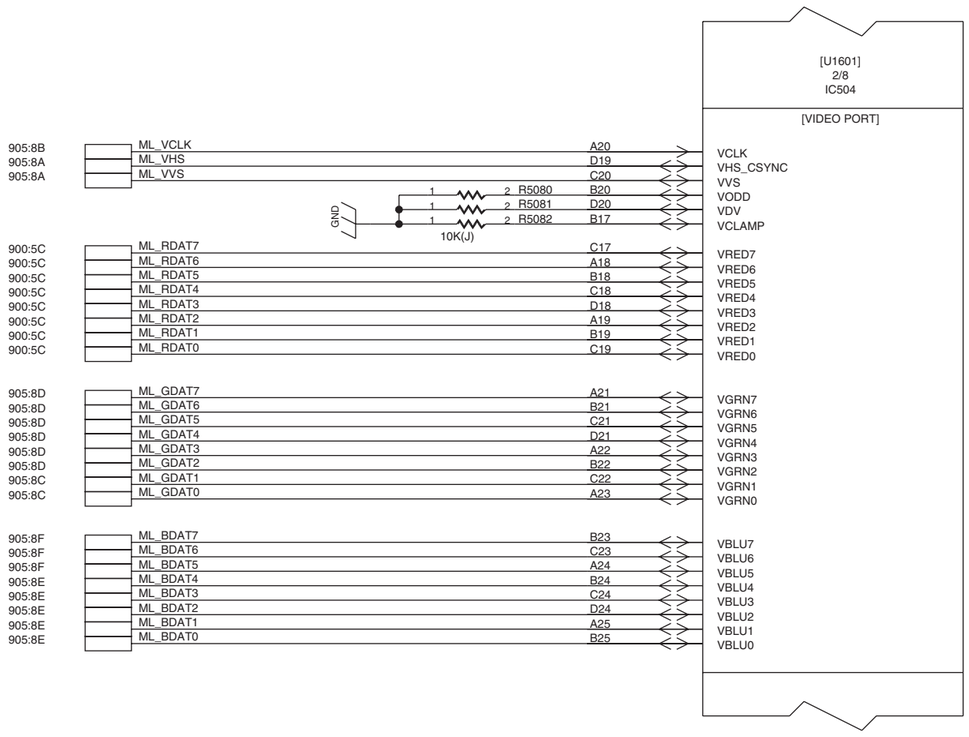
56/62/72HM195
SIGNAL (ML POWER)

SH.NO.
501



56/62/72HM195
SIGNAL (ML ANALOG INPUT)

SH.NO.
502



56/62/72HM195
SIGNAL (ML DIGITAL INPUT)

SH.NO.
503

GDM010001249

[U1601]
3/8
IC504

[DISPLAY PORT1]

DORED9 DORED8 DORED7 DORED6 DORED5 DORED4 DORED3 DORED2 DORED1 DORED0
DOGRN9 DOGRN8 DOGRN7 DOGRN6 DOGRN5 DOGRN4 DOGRN3 DOGRN2 DOGRN1 DOGRN0
DOBLU9 DOBLU8 DOBLU7 DOBLU6 DOBLU5 DOBLU4 DOBLU3 DOBLU2 DOBLU1 DOBLU0

[DISPLAY PORT CTL.]

PPWR PBIAS PWM0 PWM1 PWM2
DHS DVS DEN DCLK
OEXTR

AC16 — R5014 3.3K(F) — GND

RM501 [RMX4A] 68(J): RODAT9 RODAT8 RODAT7 RODAT6
RM502 [RMX4A] 68(J): RODAT5 RODAT4 RODAT3 RODAT2
RM503 [RMX4A] 68(J): RODAT1 RODAT0
RM504 [RMX4A] 68(J): GODAT9 GODAT8 GODAT7 GODAT6
RM505 [RMX4A] 68(J): GODAT5 GODAT4 GODAT3 GODAT2
RM506 [RMX4A] 68(J): GODAT1 GODAT0
RM507 [RMX4A] 68(J): BODAT9 BODAT8 BODAT7 BODAT6
RM508 [RMX4A] 68(J): BODAT5 BODAT4 BODAT3 BODAT2
RM509 [RMX4A] 68(J): BODAT1 BODAT0

R5015 R5016 R5017 R5018 R5019 NOT MOUNT — ML_HANDSHAKE

R5020 R5021 ML_DHS_ODD ML_DHS_EVEN — 504:5C 506:1C
R5022 R5023 ML_DVS_ODD ML_DVS_EVEN — 504:5C 506:1C
R5024 R5025 ML_DEN_ODD ML_DEN_EVEN — 504:5C 506:1C
R5026 R5027 ML_DCLK_ODD ML_DCLK_EVEN — 504:5D 506:1D
(68(J))

R5028 4.7K(J) — ML+3.3V
R5029 NOT MOUNT — ML+3.3V
R5030 4.7K(J) — GND
R5031 NOT MOUNT — GND
R5032 4.7K(J) — ML+3.3V
W5017 NOT MOUNT
R5072 NOT MOUNT — GND
ML_LVDSPD — 404:6C;506:5A

LVDS TRANSMITTER
[U103]
IC505

/PDWN (13) RS (43) R/F (60)

RODAT4 33 TA0
RODAT5 34 TA1
RODAT6 35 TA2
RODAT7 36 TA3
RODAT8 37 TA4
RODAT9 38 TA5
GODAT4 40 TA6

GODAT5 41 TB 0
GODAT6 42 TB 1
GODAT7 44 TB 2
GODAT8 45 TB 3
GODAT9 46 TB 4
BODAT4 48 TB 5
BODAT5 49 TB 6

BODAT6 50 TC0
BODAT7 52 TC1
BODAT8 53 TC2
BODAT9 54 TC3
504:4E ML_DHS_ODD 55 TC4
504:4F ML_DVS_ODD 57 TC5
504:4F ML_DEN_ODD 58 TC6

RODAT2 59 TD0
RODAT3 61 TD1
GODAT2 62 TD2
GODAT3 63 TD3
BODAT2 64 TD4
BODAT3 1 TD5
3 TD6

RODAT0 4 TE0
RODAT1 5 TE1
GODAT0 6 TE2
GODAT1 8 TE3
BODAT0 9 TE4
BODAT1 11 TE5
16 TE6

504:4F ML_DCLK_ODD 12 CLKIN

27 [LVDSVCC]
15 [PLLVCC]
7 [VCC]
51 [VCC]

[LVDSGND] 17 26 32
[PLLGND] 14
[GND] 2 10 39 47 56

* 200mV Swing

TA+ 30
TA- 31
TB+ 28
TB- 29
TC+ 24
TC- 25
TD+ 20
TD- 21
TE+ 18
TE- 19
TCLK+ 22
TCLK- 23

[FL09C] FL534 — TCM2010-201-4P-T
ML_TxOA- 506:6A
ML_TxOA+ 506:6A
ML_TxOB - 506:6B
ML_TxOB + 506:6B

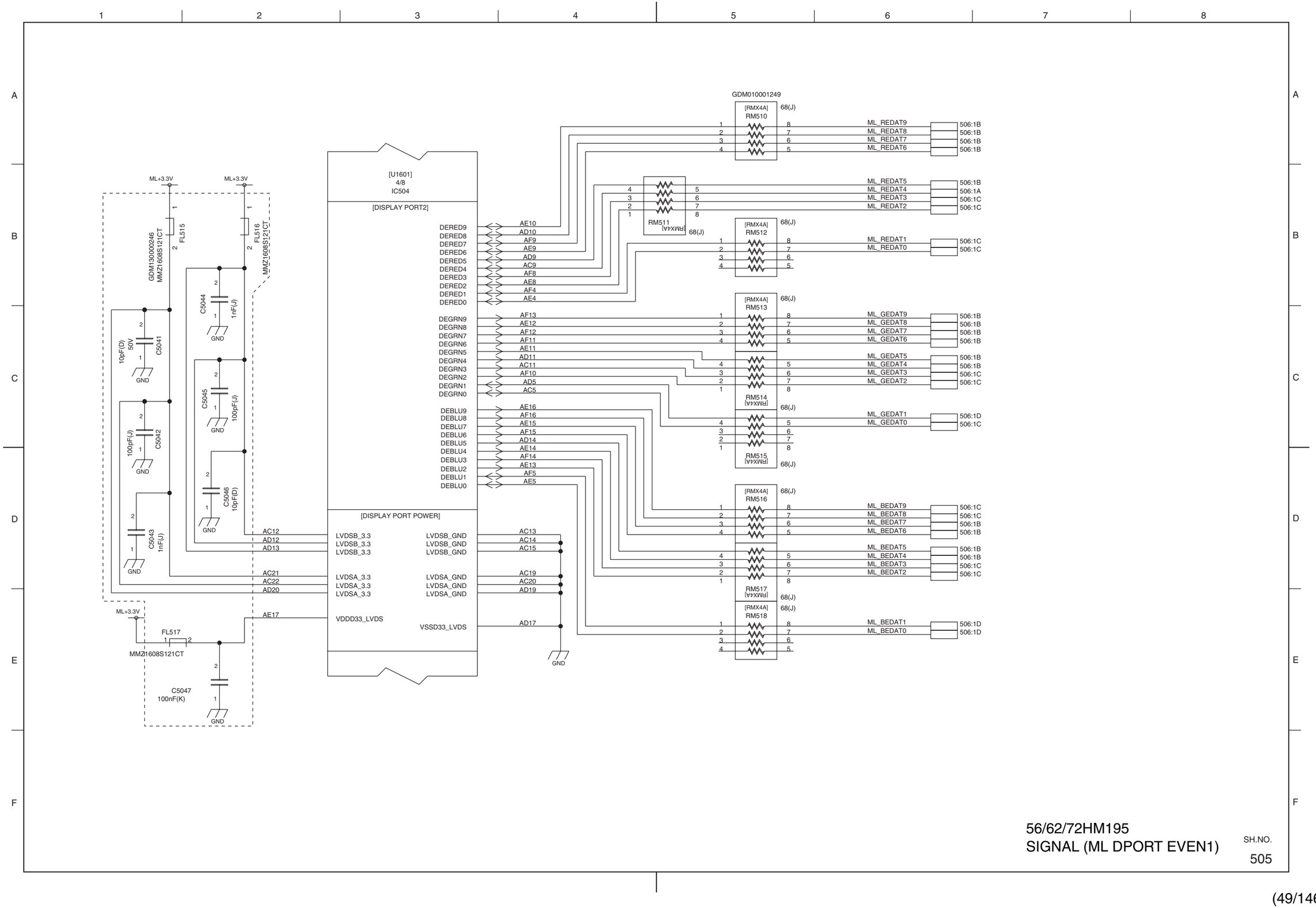
[FL09C] FL535 — TCM2010-201-4P-T
ML_TxOC- 506:6A
ML_TxOC+ 506:6A
ML_TxOCLK- 506:6B
ML_TxOCLK+ 506:6B

[FL09C] FL536 — TCM2010-201-4P-T
ML_TxOD- 506:6A
ML_TxOD+ 506:6A
ML_TxOE- 506:6B
ML_TxOE+ 506:6B

C5033 470pF(J) 50V — GND
C5034 10nF(K) 50V — GND
C5035 470pF(J) 50V — GND
C5036 10nF(K) 50V — GND
C5037 470pF(J) 50V — GND
C5038 100nF(K) 16V — GND
C5039 470pF(J) 50V — GND
C5040 100nF(K) 16V — GND
FL511 FL512 FL513 FL514 — ML+3.3V

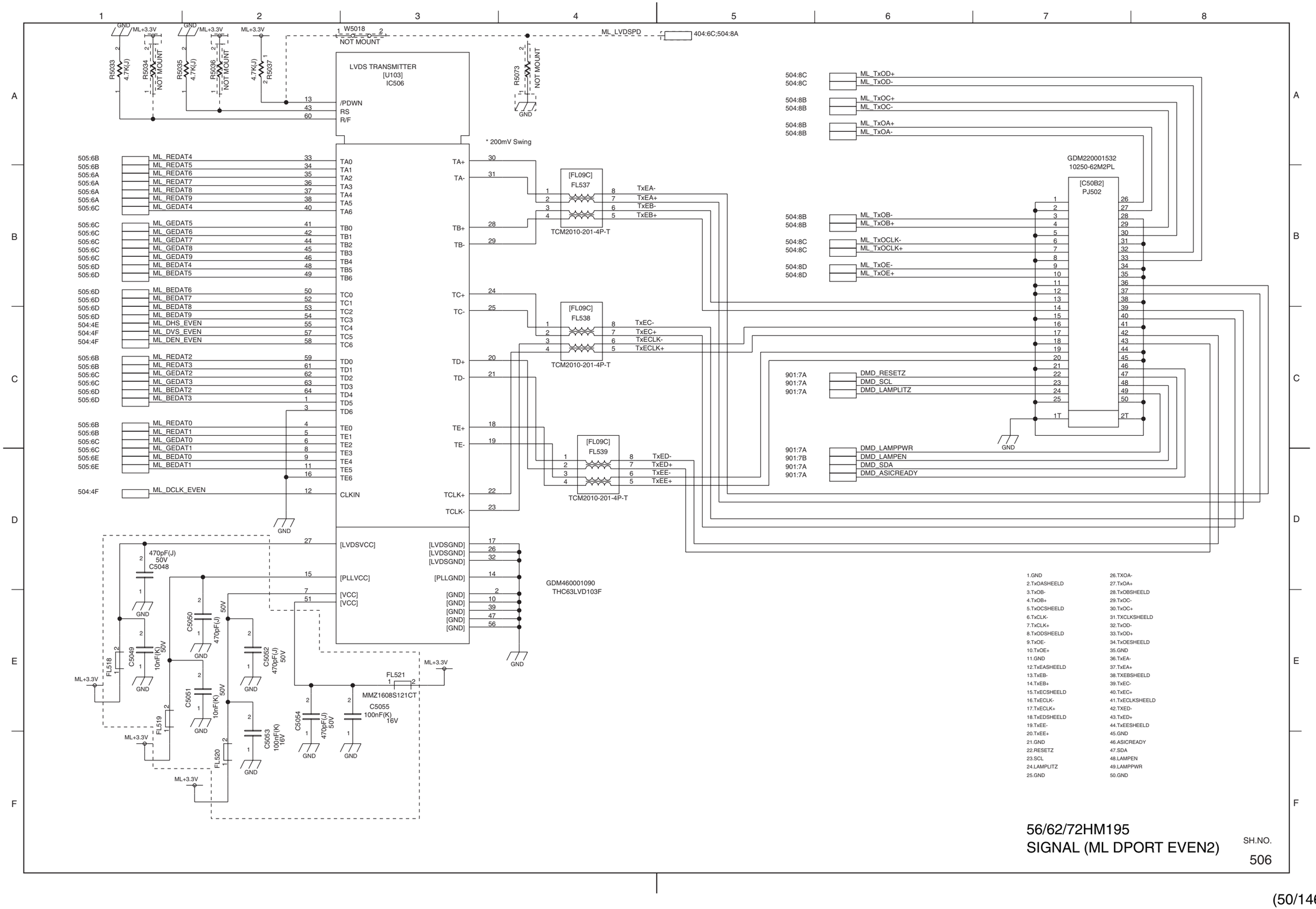
56/62/72HM195
SIGNAL (ML DPORT ODD)

SH.NO.
504



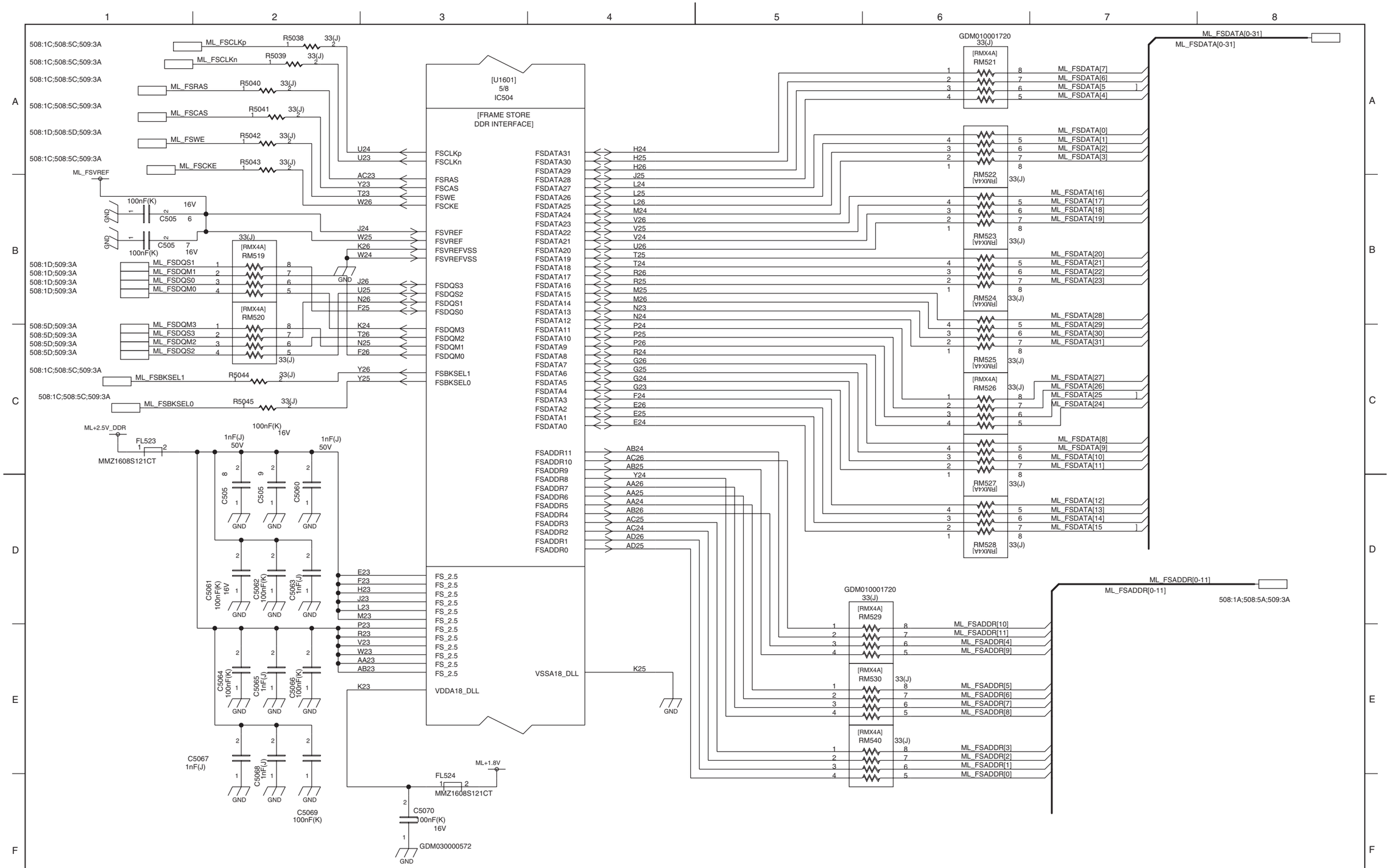
56/62/72HM195
SIGNAL (ML DPORT EVEN1)

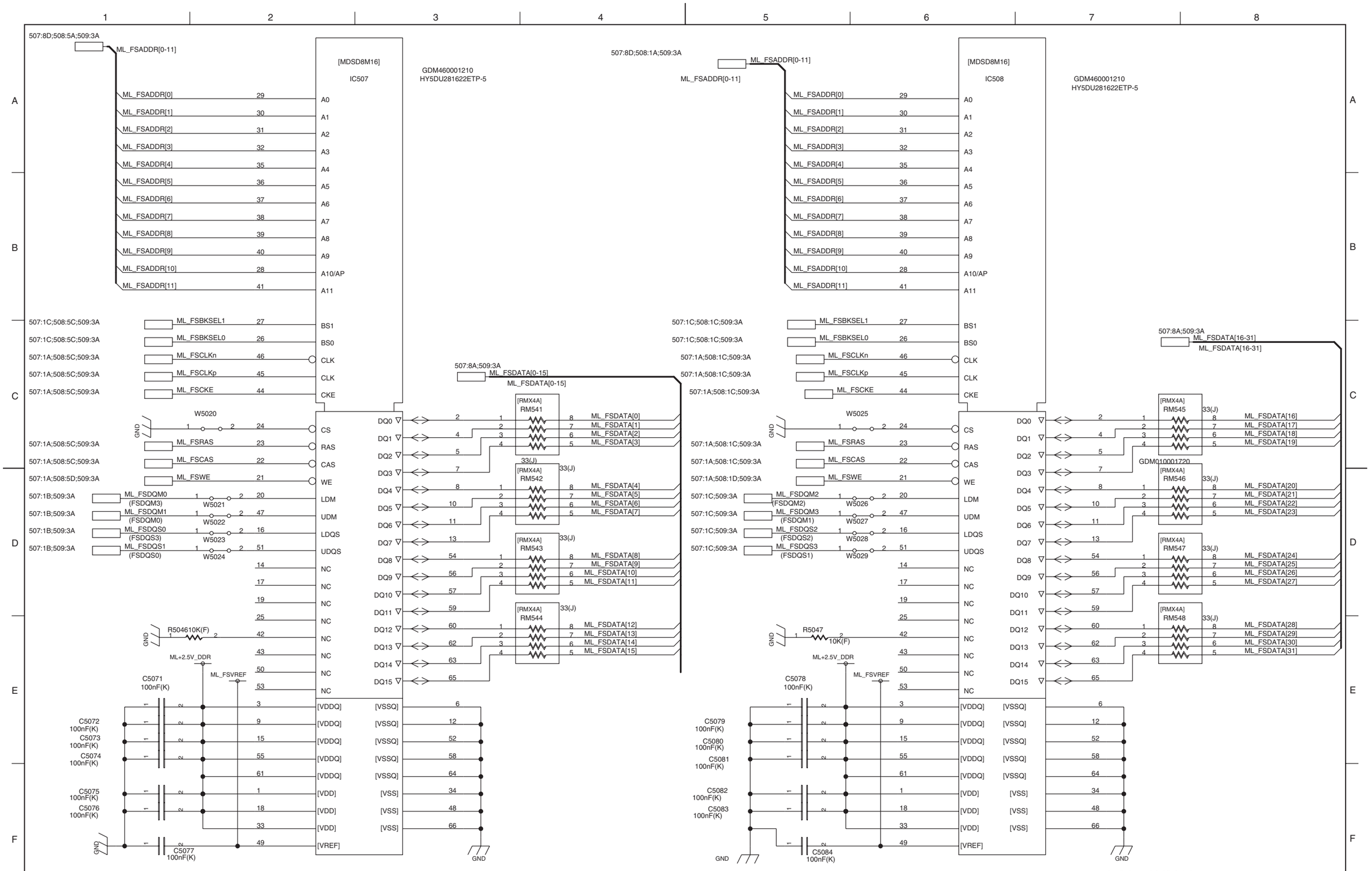
SH.NO.
505



56/62/72HM195
SIGNAL (ML DPORT EVEN2)

SH.NO.
506


[U1601]
5/8
IC504
[FRAME STORE
DDR INTERFACE]
FSCLKp
FSCLKn
FSRAS
FSCAS
FSWE
FSCKE
FSVREF
FSVREF
FSVREFVSS
FSVREFVSS
FSDQS3
FSDQS2
FSDQS1
FSDQS0
FSDQM3
FSDQM2
FSDQM1
FSDQM0
FSBKSEL1
FSBKSEL0
FS_2.5
VDDA18_DLL
VSSA18_DLL
FSDATA31
FSDATA30
FSDATA29
FSDATA28
FSDATA27
FSDATA26
FSDATA25
FSDATA24
FSDATA23
FSDATA22
FSDATA21
FSDATA20
FSDATA19
FSDATA18
FSDATA17
FSDATA16
FSDATA15
FSDATA14
FSDATA13
FSDATA12
FSDATA11
FSDATA10
FSDATA9
FSDATA8
FSDATA7
FSDATA6
FSDATA5
FSDATA4
FSDATA3
FSDATA2
FSDATA1
FSDATA0
FSADDR11
FSADDR10
FSADDR9
FSADDR8
FSADDR7
FSADDR6
FSADDR5
FSADDR4
FSADDR3
FSADDR2
FSADDR1
FSADDR0
ML_FSCLKp
ML_FSCLKn
ML_FSRAS
ML_FSCAS
ML_FSWE
ML_FSCKE
ML_FSVREF
ML_FSDQS1
ML_FSDQM1
ML_FSDQS0
ML_FSDQM0
ML_FSDQM3
ML_FSDQS3
ML_FSDQM2
ML_FSDQS2
ML_FSBKSEL1
ML_FSBKSEL0
ML+2.5V_DDR
ML+1.8V
MMZ1608S121CT
GDM030000572
GDM010001720
ML_FSDATA[0-31]
ML_FSADDR[0-11]
508:1A;508:5A;509:3A
56/62/72HM195
SIGNAL (ML DDR INTERFACE)
SH.NO.
507


1
2
3
4
5
6
7
8
A
B
C
D
E
F
507:8D;508:5A;509:3A
ML_FSADDR[0-11]
[MDSD8M16]
IC507
GDM460001210
HY5DU281622ETP-5
ML_FSADDR[0]
ML_FSADDR[1]
ML_FSADDR[2]
ML_FSADDR[3]
ML_FSADDR[4]
ML_FSADDR[5]
ML_FSADDR[6]
ML_FSADDR[7]
ML_FSADDR[8]
ML_FSADDR[9]
ML_FSADDR[10]
ML_FSADDR[11]
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10/AP
A11
507:1C;508:5C;509:3A
ML_FSBKSEL1
ML_FSBKSEL0
BS1
BS0
507:1A;508:5C;509:3A
ML_FSCLKn
ML_FSCLKp
CLK
CKE
ML_FSCKE
W5020
GND
CS
507:1A;508:5C;509:3A
ML_FSRAS
RAS
507:1A;508:5C;509:3A
ML_FSCAS
CAS
507:1A;508:5D;509:3A
ML_FSWE
WE
507:1B;509:3A
ML_FSDQM0
(FSDQM3)
W5021
LDM
ML_FSDQM1
(FSDQM0)
W5022
UDM
ML_FSDQS0
(FSDQS3)
W5023
LDQS
ML_FSDQS1
(FSDQS0)
W5024
UDQS
NC
R504610K(F)
ML+2.5V_DDR
ML_FSVREF
C5071
100nF(K)
C5072
100nF(K)
C5073
100nF(K)
C5074
100nF(K)
C5075
100nF(K)
C5076
100nF(K)
C5077
100nF(K)
[VDDQ]
[VSSQ]
[VDD]
[VSS]
[VREF]
507:8A;509:3A
ML_FSDATA[0-15]
[RMX4A]
RM541
RM542
RM543
RM544
33(J)
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
ML_FSDATA[0]
ML_FSDATA[1]
ML_FSDATA[2]
ML_FSDATA[3]
ML_FSDATA[4]
ML_FSDATA[5]
ML_FSDATA[6]
ML_FSDATA[7]
ML_FSDATA[8]
ML_FSDATA[9]
ML_FSDATA[10]
ML_FSDATA[11]
ML_FSDATA[12]
ML_FSDATA[13]
ML_FSDATA[14]
ML_FSDATA[15]
GND
507:8D;508:1A;509:3A
ML_FSADDR[0-11]
[MDSD8M16]
IC508
GDM460001210
HY5DU281622ETP-5
507:1A;508:1C;509:3A
507:1A;508:1D;509:3A
507:1C;509:3A
ML_FSDQM2
(FSDQM2)
W5026
ML_FSDQM3
(FSDQM1)
W5027
ML_FSDQS2
(FSDQS2)
W5028
ML_FSDQS3
(FSDQS1)
W5029
R5047
10K(F)
W5025
C5078
100nF(K)
C5079
100nF(K)
C5080
100nF(K)
C5081
100nF(K)
C5082
100nF(K)
C5083
100nF(K)
C5084
100nF(K)
507:8A;509:3A
ML_FSDATA[16-31]
RM545
RM546
RM547
RM548
ML_FSDATA[16]
ML_FSDATA[17]
ML_FSDATA[18]
ML_FSDATA[19]
ML_FSDATA[20]
ML_FSDATA[21]
ML_FSDATA[22]
ML_FSDATA[23]
ML_FSDATA[24]
ML_FSDATA[25]
ML_FSDATA[26]
ML_FSDATA[27]
ML_FSDATA[28]
ML_FSDATA[29]
ML_FSDATA[30]
ML_FSDATA[31]
GDM010001720
56/62/72HM195
SIGNAL (ML DDR SDRAM)
SH.NO.
508

ML_FSADDR[0-11],ML_FSBKSEL0,ML_FSBKSEL1,ML_FSCAS,ML_FSCKE,ML_FSCLKn,ML_FSCLKp,ML_FSDATA[0-31],ML_FSDQM0,ML_FSDQM1,ML_FSDQM2,ML_FSDQM3,ML_FSDQS0,ML_FSDQS1,ML_FSDQS2,ML_FSDQS3,ML_FSRAS,ML_FSWE

ML+2.5V_DDR

R5049

REG.
[L2995]
IC509
LP2995MX
VDDQ
VREF
VSENSE
NC
VTT
[AVIN]
[PVIN]
[GND]

W5030

ML_FSVREF

GND

C508 5 1uF(K) 10V

C508 6 220uF(M) [CP] 16V

C508 7 10nF(K)

R5055 10K(F)

C508 8 100nF(K)

C508 9 100nF(K)

C5090 100nF(K)

C5091 100nF(K)

C5092 100nF(K)

C5093 100nF(K)

C5094 100nF(K)

C5095 100nF(K)

C5096 100nF(K)

C5097 100nF(K)

C5098 100nF(K)

RM549 [RMX4A] 150(J)

RM550 [RMX4A] 150(J)

RM551 [RMX4A] 150(J)

RM552 [RMX4A] 150(J)

RM553 [RMX4A] 150(J)

RM554 [RMX4A] 150(J)

RM555 [RMX4A] 150(J)

RM556 [RMX4A] 150(J)

RM557 [RMX4A] 150(J)

RM558 [RMX4A] 150(J)

RM559 [RMX4A] 150(J)

RM560 [RMX4A] 150(J)

RM561 [RMX4A] 150(J)

RM562 [RMX4A] 150(J)

R5050 150(J)

R5051 150(J)

R5052 150(J)

R5053 150(J)

R5054 150(J)

C5099 100nF(K)

C5100 100nF(K)

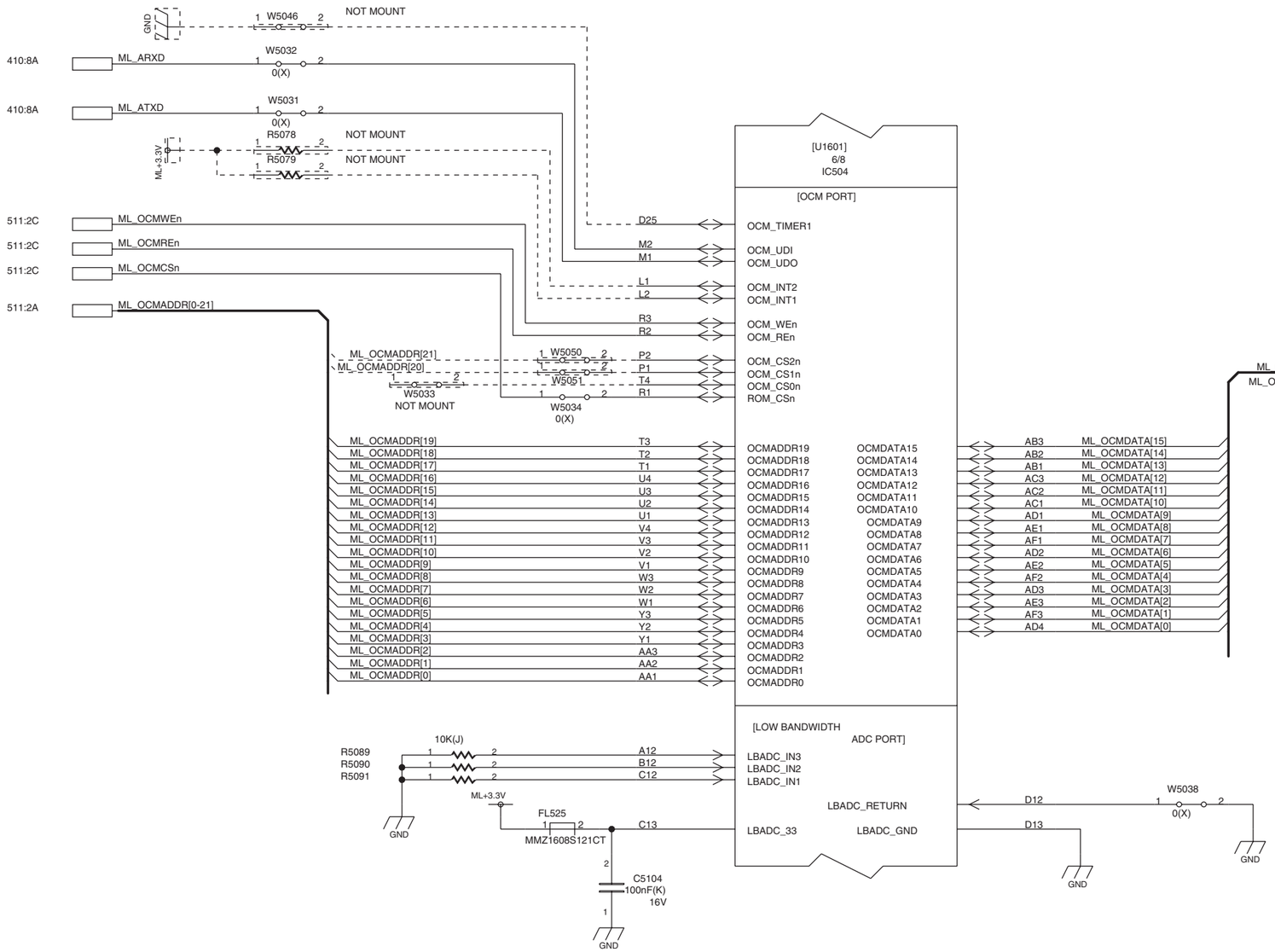
C5101 100nF(K)

C5102 100nF(K)

C5103 100nF(K)

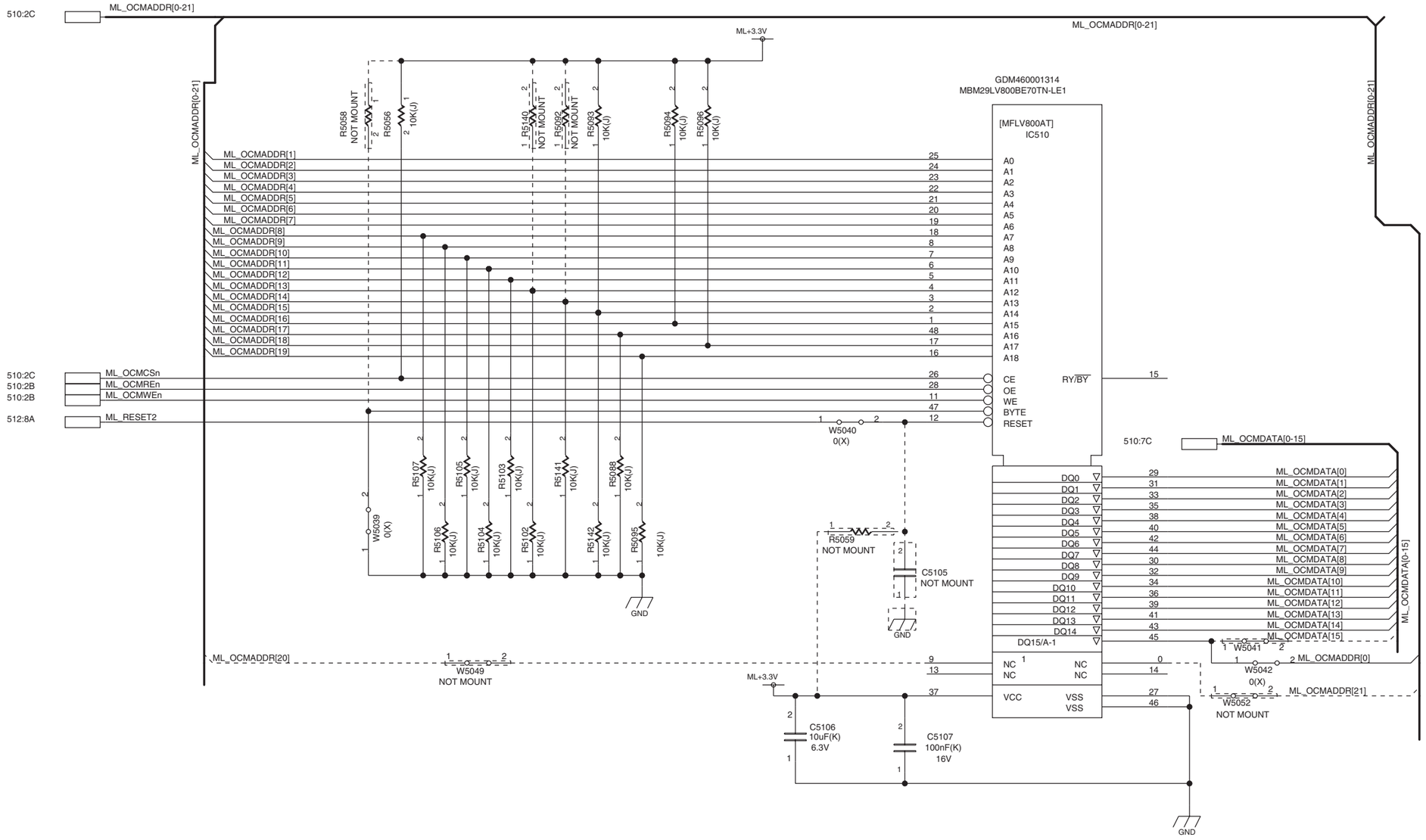
56/62/72HM195
SIGNAL (ML DDR TERMINATION)

SH.NO.
509



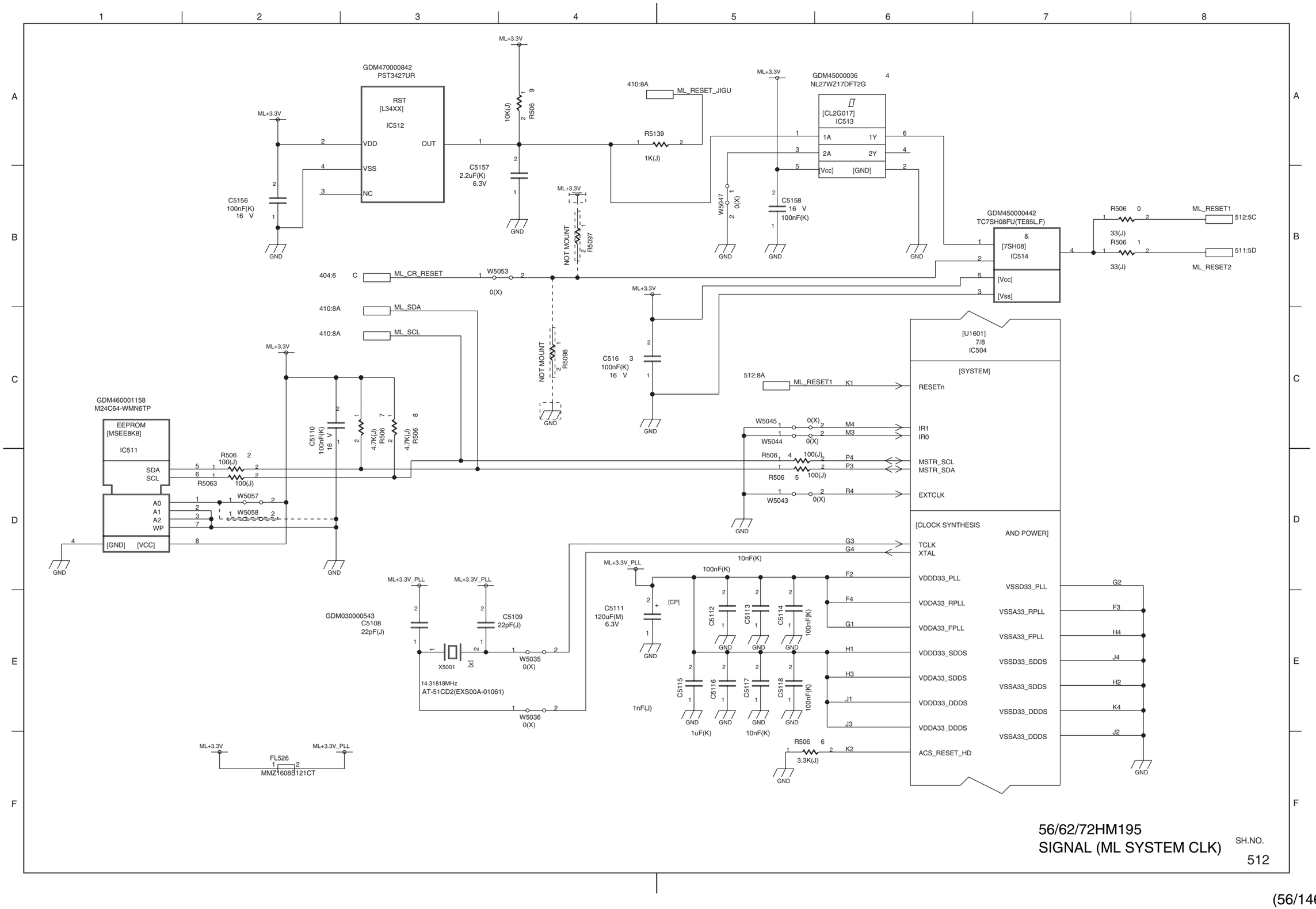
56/62/72HM195
SIGNAL (ML OCM PORT)

SH.NO.
510



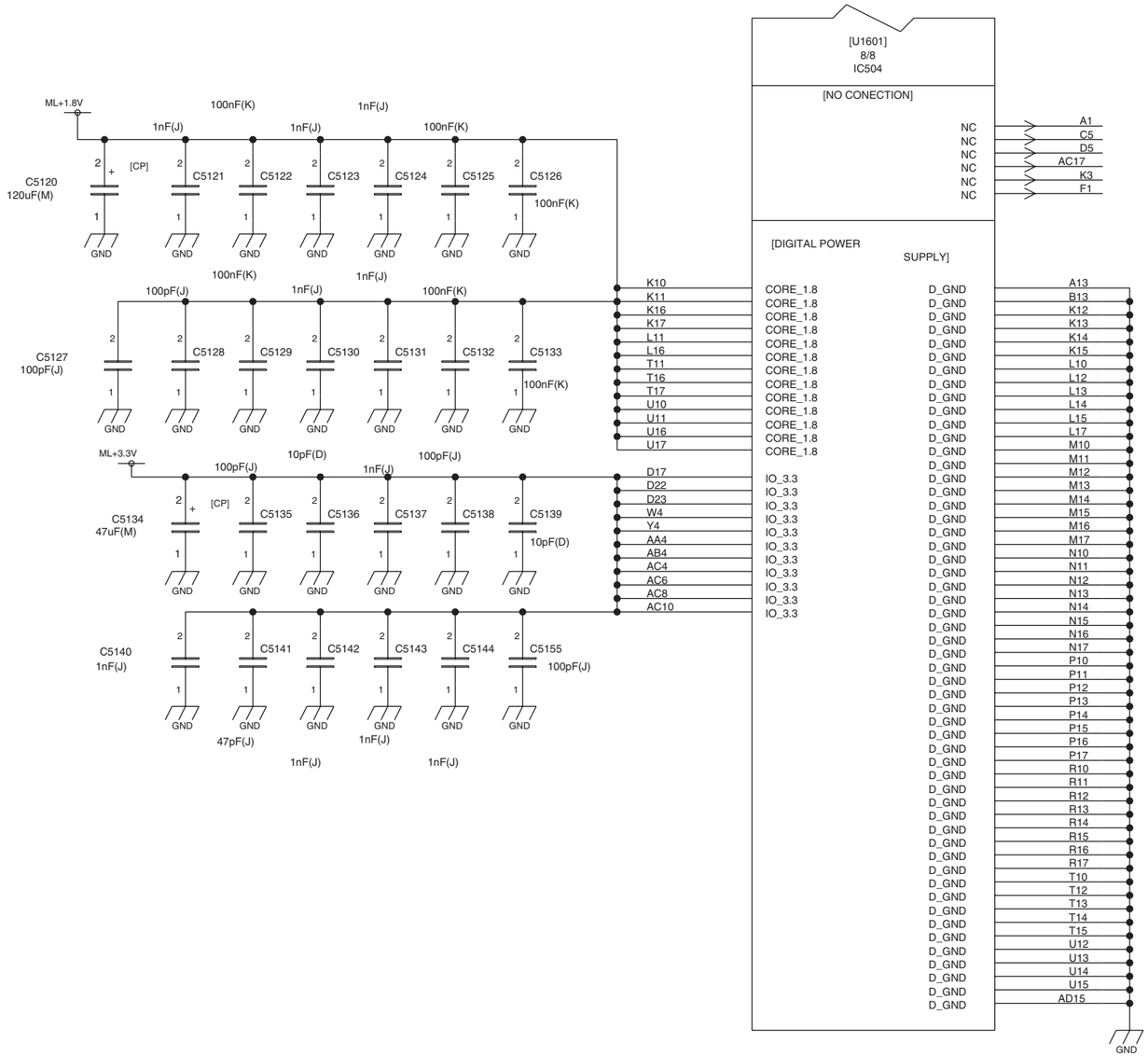
56/62/72HM195
SIGNAL (ML FLASH)

SH.NO.
511



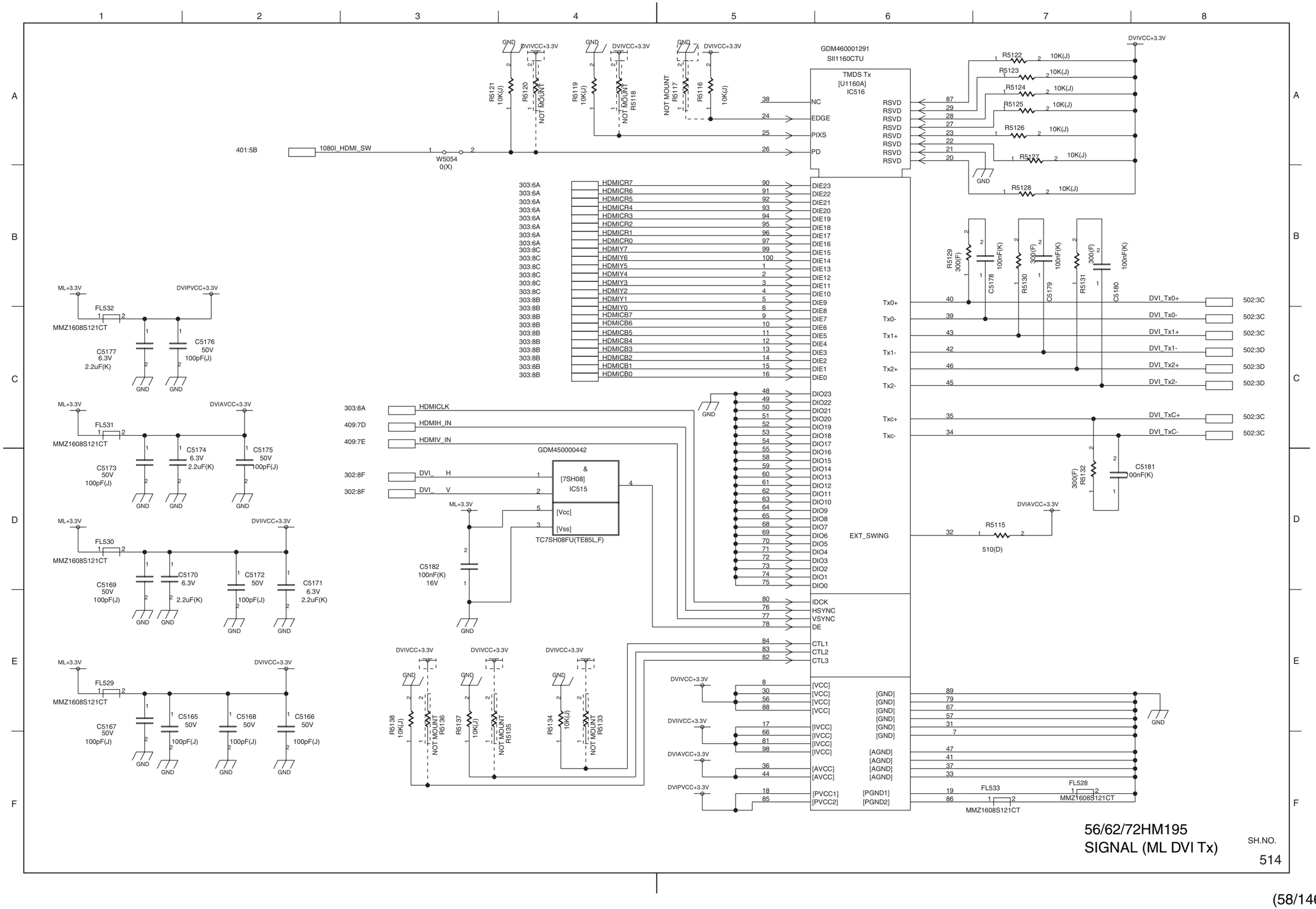
56/62/72HM195
SIGNAL (ML SYSTEM CLK)

SH.NO.
512



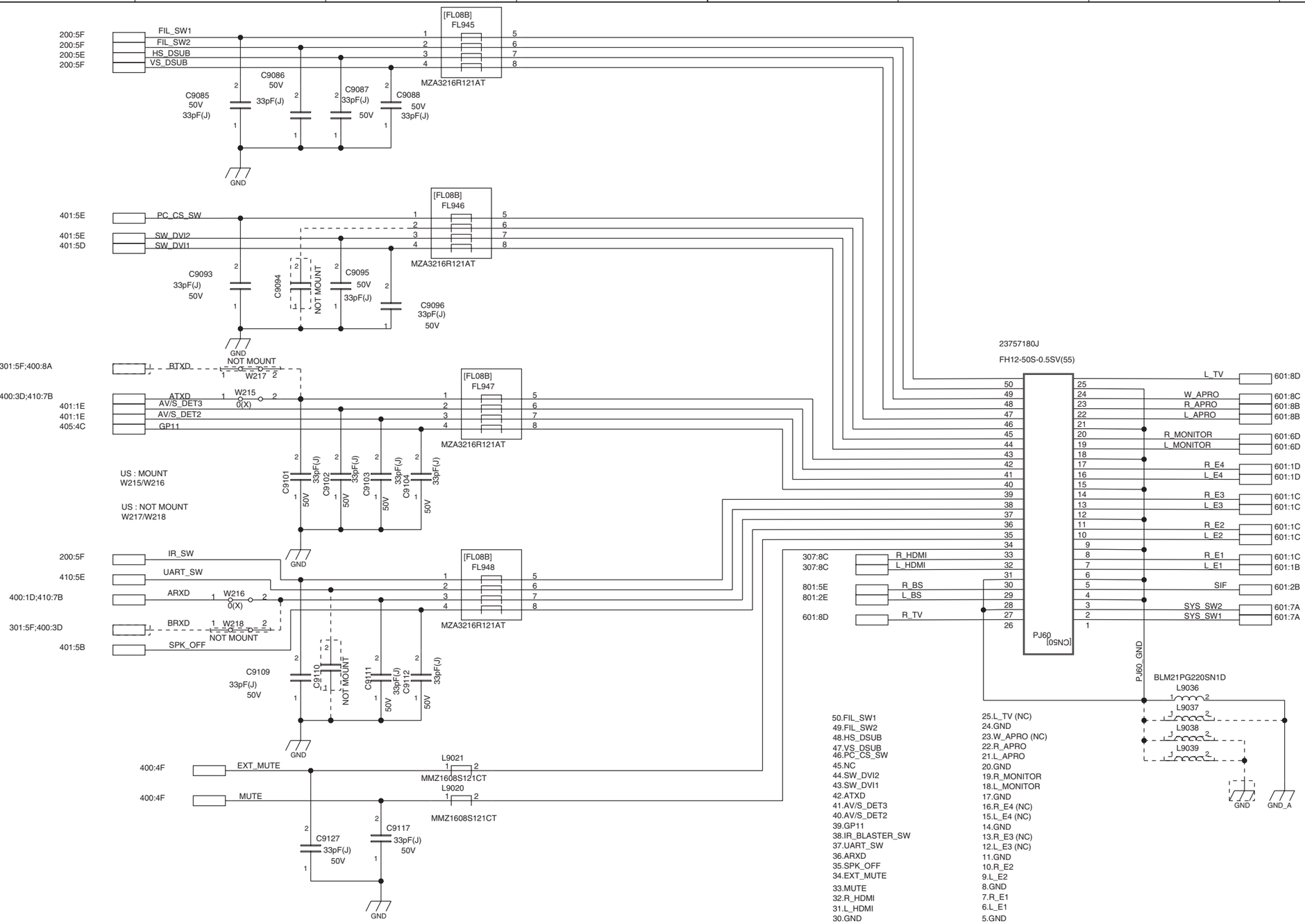
56/62/72HM195
SIGNAL (ML POWER & GND)

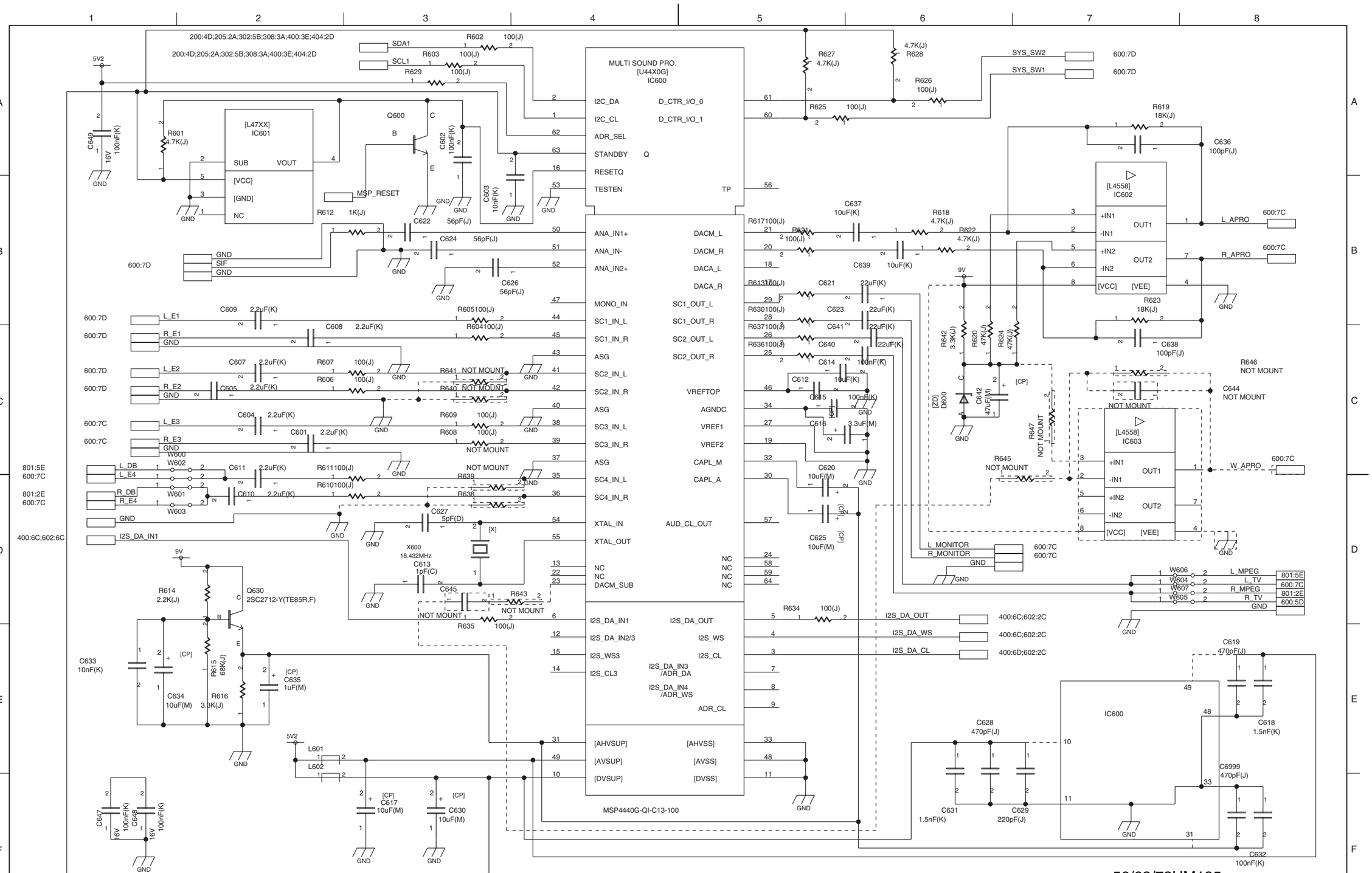
SH.NO.
513

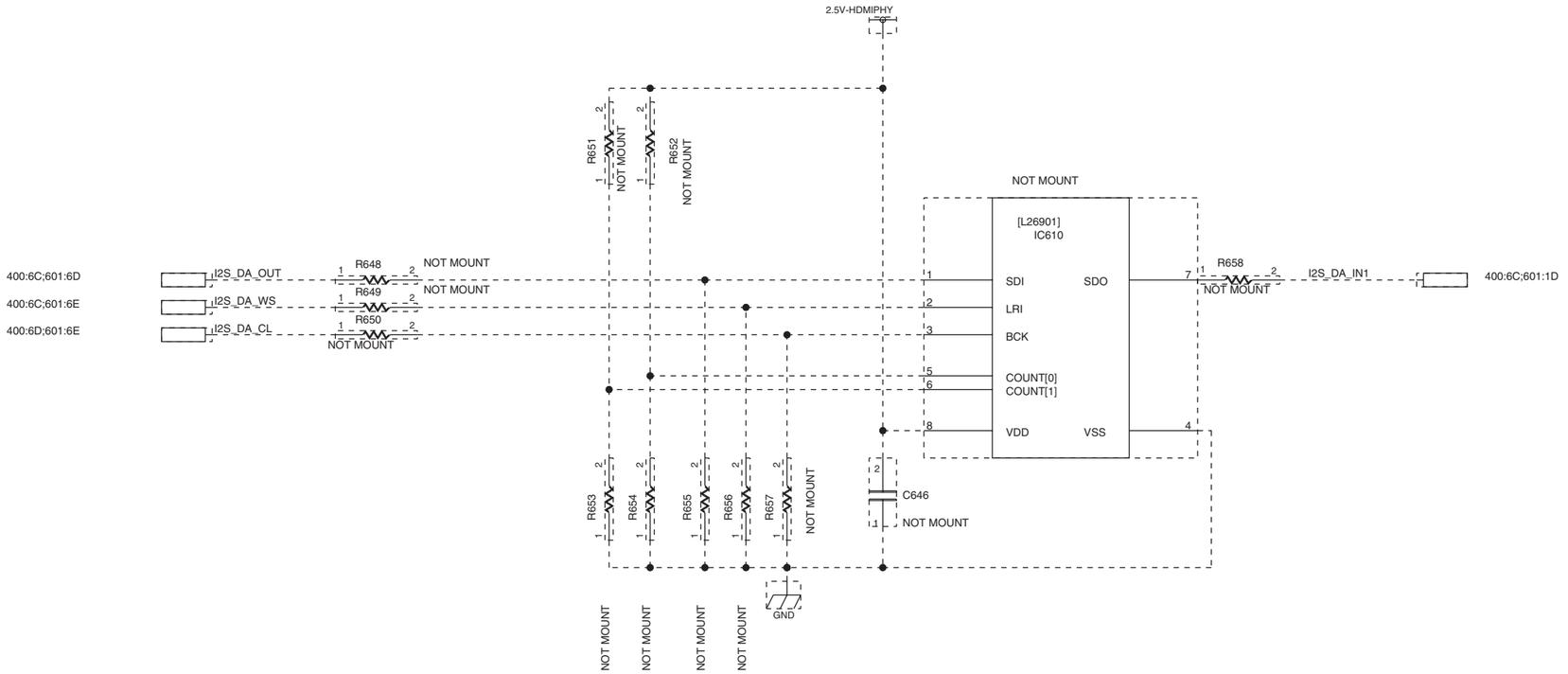


56/62/72HM195
SIGNAL (ML DVI Tx)

SH.NO.
514

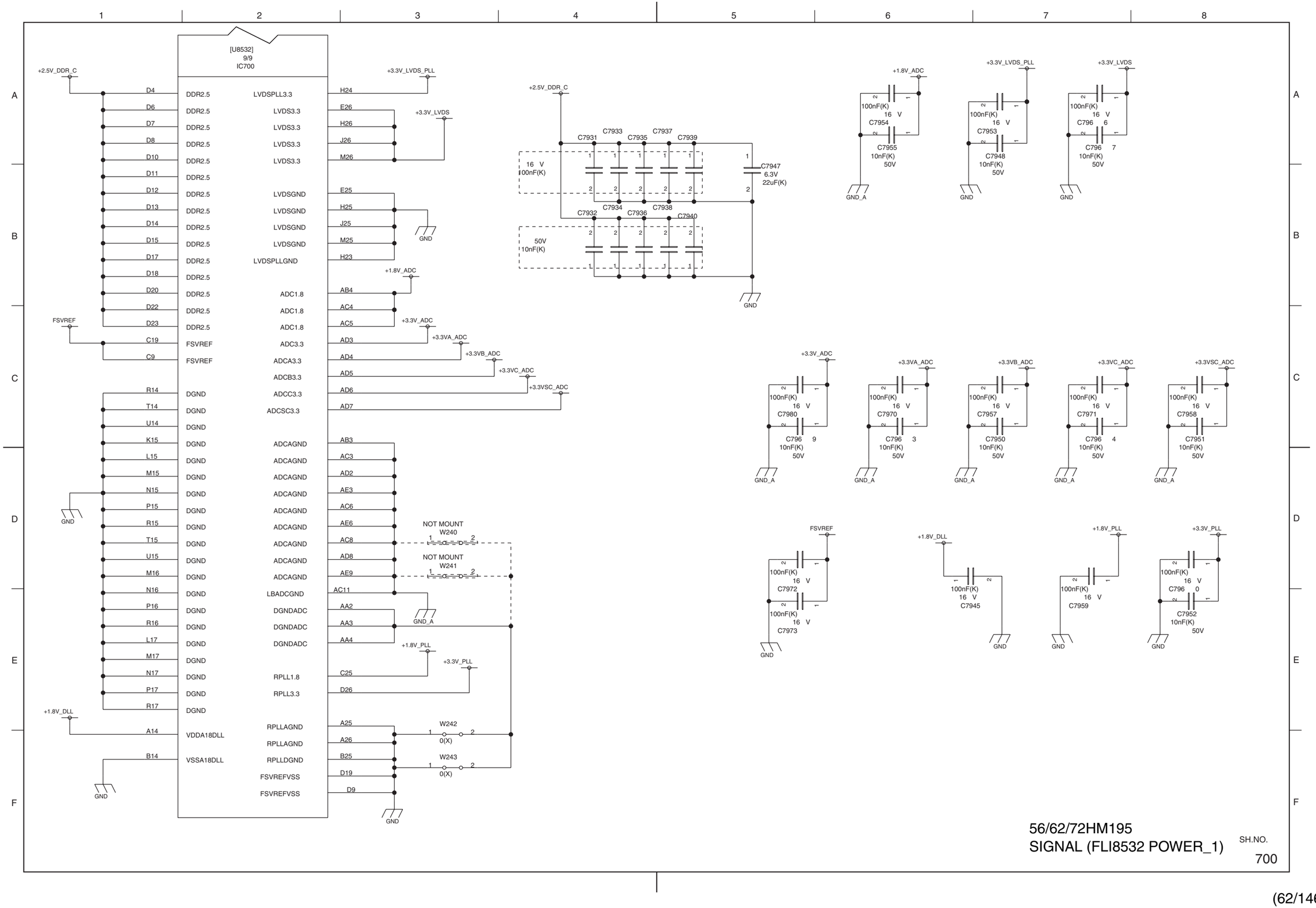

200:5F FIL_SW1
200:5F FIL_SW2
200:5E HS_DSUB
200:5F VS_DSUB
[FL08B] FL945
MZA3216R121AT
C9085 50V 33pF(J)
C9086 50V 33pF(J)
C9087 33pF(J) 50V
C9088 50V 33pF(J)
GND
401:5E PC_CS_SW
401:5E SW_DVI2
401:5D SW_DVI1
[FL08B] FL946
MZA3216R121AT
C9093 33pF(J) 50V
C9094 NOT MOUNT
C9095 50V 33pF(J)
C9096 33pF(J) 50V
GND
301:5F;400:8A RTXD
W217
NOT MOUNT
400:3D;410:7B ATXD
W215 0(X)
401:1E AV/S_DET3
401:1E AV/S_DET2
405:4C GP11
[FL08B] FL947
MZA3216R121AT
US : MOUNT W215/W216
US : NOT MOUNT W217/W218
C9101 33pF(J) 50V
C9102 33pF(J) 50V
C9103 33pF(J) 50V
C9104 33pF(J) 50V
200:5F IR_SW
410:5E UART_SW
400:1D;410:7B ARXD
W216 0(X)
301:5F;400:3D BRXD
W218
NOT MOUNT
401:5B SPK_OFF
[FL08B] FL948
MZA3216R121AT
C9109 33pF(J) 50V
C9110 NOT MOUNT
C9111 33pF(J) 50V
C9112 33pF(J) 50V
GND
400:4F EXT_MUTE
L9021
MMZ1608S121CT
400:4F MUTE
L9020
MMZ1608S121CT
C9127 33pF(J) 50V
C9117 33pF(J) 50V
GND
23757180J
FH12-50S-0.5SV(55)
PJ60 [CN50]
307:8C R_HDMI
307:8C L_HDMI
801:5E R_BS
801:2E L_BS
601:8D R_TV
L_TV 601:8D
W_APRO 601:8C
R_APRO 601:8B
L_APRO 601:8B
R_MONITOR 601:6D
L_MONITOR 601:6D
R_E4 601:1D
L_E4 601:1D
R_E3 601:1C
L_E3 601:1C
R_E2 601:1C
L_E2 601:1C
R_E1 601:1C
L_E1 601:1B
SIF 601:2B
SYS_SW2 601:7A
SYS_SW1 601:7A
PJ60_GND
BLM21PG220SN1D
L9036
L9037
L9038
L9039
GND
GND_A
50.FIL_SW1
49.FIL_SW2
48.HS_DSUB
47.VS_DSUB
46.PC_CS_SW
45.NC
44.SW_DVI2
43.SW_DVI1
42.ATXD
41.AV/S_DET3
40.AV/S_DET2
39.GP11
38.IR_BLASTER_SW
37.UART_SW
36.ARXD
35.SPK_OFF
34.EXT_MUTE
33.MUTE
32.R_HDMI
31.L_HDMI
30.GND
29.R_BS
28.L_BS
27.GND
26.R_TV (NC)
25.L_TV (NC)
24.GND
23.W_APRO (NC)
22.R_APRO
21.L_APRO
20.GND
19.R_MONITOR
18.L_MONITOR
17.GND
16.R_E4 (NC)
15.L_E4 (NC)
14.GND
13.R_E3 (NC)
12.L_E3 (NC)
11.GND
10.R_E2
9.L_E2
8.GND
7.R_E1
6.L_E1
5.GND
4.SIF
3.GND
2.SYS_SW2
1.SYS_SW1
56/62/72HM195
SIGNAL (AUDIO CONNECTOR)
SH.NO.
600


MULTI SOUND PRO.
[U44X0G]
IC600
MSP4440G-QI-C13-100
[L47XX]
IC601
[L4558]
IC602
[L4558]
IC603
200:4D;205:2A;302:5B;308:3A;400:3E;404:2D
SDA1
SCL1
R602 100(J)
R603 100(J)
R629 100(J)
5V2
C649 100nF(K) 16V
R601 4.7K(J)
Q600
C602 100nF(K)
C603 10nF(K)
MSP_RESET
R612 1K(J)
C622 56pF(J)
C624 56pF(J)
C626 56pF(J)
600:7D
GND
SIF
R627 4.7K(J)
4.7K(J) R628
R626 100(J)
R625 100(J)
SYS_SW2
SYS_SW1
600:7D
R619 18K(J)
C636 100pF(J)
C637 10uF(K)
R618 4.7K(J)
R621 100(J)
R622 4.7K(J)
C639 10uF(K)
L_APRO
R_APRO
600:7C
9V
R623 18K(J)
C638 100pF(J)
R642 3.3K(J)
R620 47K(J)
R624 47K(J)
C642 47uF(M)
[ZD] D600
[CP]
R646 NOT MOUNT
C644 NOT MOUNT
R647 NOT MOUNT
R645 NOT MOUNT
W_APRO
L_MONITOR
R_MONITOR
W606 L_MPEG
W604 L_TV
W607 R_MPEG
W605 R_TV
801:5E
600:7C
801:2E
600:5D
L_E1
R_E1
L_E2
R_E2
L_E3
R_E3
C609 2.2uF(K)
C608 2.2uF(K)
C607 2.2uF(K)
C605 2.2uF(K)
C604 2.2uF(K)
C601 2.2uF(K)
R605 100(J)
R604 100(J)
R606 100(J)
R607 100(J)
R608 100(J)
R609 100(J)
R640 NOT MOUNT
R641 NOT MOUNT
W600
W602
W601
W603
L_DB
L_E4
R_DB
R_E4
C611 2.2uF(K)
C610 2.2uF(K)
R611 100(J)
R610 100(J)
R638 NOT MOUNT
R639 NOT MOUNT
C627 5pF(D)
X600 18.432MHz
C613 1pF(C)
C645 NOT MOUNT
R643 NOT MOUNT
R635 100(J)
I2S_DA_IN1
R614 2.2K(J)
Q630 2SC2712-Y(TE85R,F)
C633 10nF(K)
C634 10uF(M)
R616 3.3K(J)
R615 68K(J)
C635 1uF(M)
L601
L602
C617 10uF(M)
C630 10uF(M)
C647 100nF(K) 16V
C648 100nF(K) 16V
R634 100(J)
I2S_DA_OUT
I2S_WS
I2S_CL
I2S_DA_OUT
I2S_DA_WS
I2S_DA_CL
400:6C;602:2C
400:6C;602:2C
400:6D;602:2C
C619 470pF(J)
C618 1.5nF(K)
C628 470pF(J)
C631 1.5nF(K)
C629 220pF(J)
C6999 470pF(J)
C632 100nF(K)
C621 22uF(K)
C623 22uF(K)
C641 22uF(K)
C640 22uF(K)
C614 100nF(K)
C612 10uF(K)
C615 100nF(K)
C616 3.3uF(M)
C620 10uF(M)
C625 10uF(M)
R617 100(J)
R630 100(J)
R637 100(J)
R636 100(J)
R631 100(J)
R632 100(J)
R633 100(J)
R634 100(J)
56/62/72HM195
SIGNAL (AUDIO_MSP)
SH.NO.
601



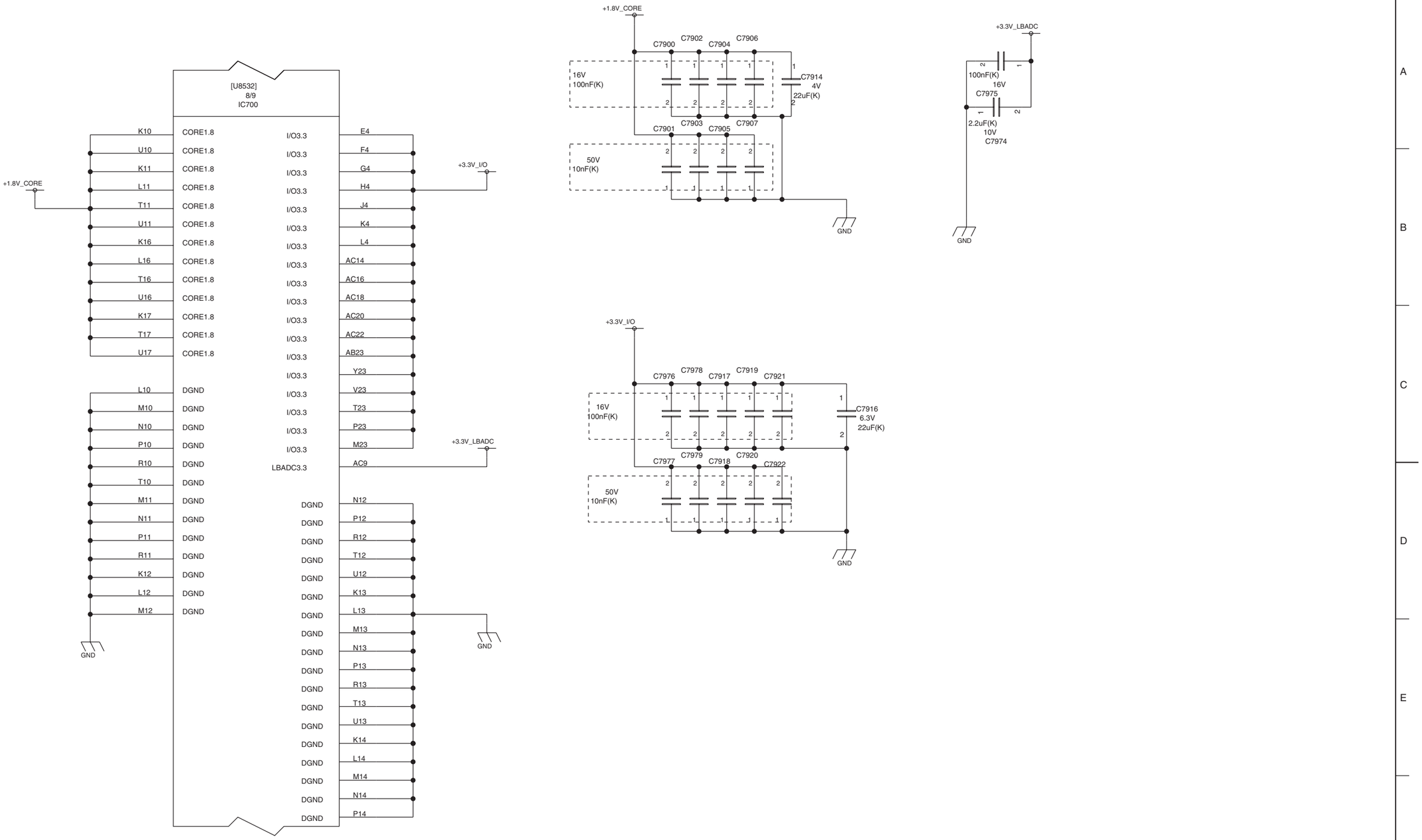
56/62/72HM195
SIGNAL (AUDIO_DELAY)

SH.NO.
602



56/62/72HM195
SIGNAL (FLI8532 POWER_1)

SH.NO.
700



56/62/72HM195
SIGNAL (FLI8532 POWER_2)

SH.NO.
701

703:4A;704:3A,,703:7A;704:3A,703:1A;703:4A;704:3A,704:3A,703:1A;704:3A
FSDATA[0],FSDATA[1],FSDATA[2],FSDATA[3],FSDATA[4],FSDATA[5],FSDATA[6],FSDATA[7],FSDATA[8],FSDATA[9],FSDATA[10],FSDATA[11],FSDATA[12],FSDATA[13],FSDATA[14],FSDATA[15],FSDATA[16],FSDATA

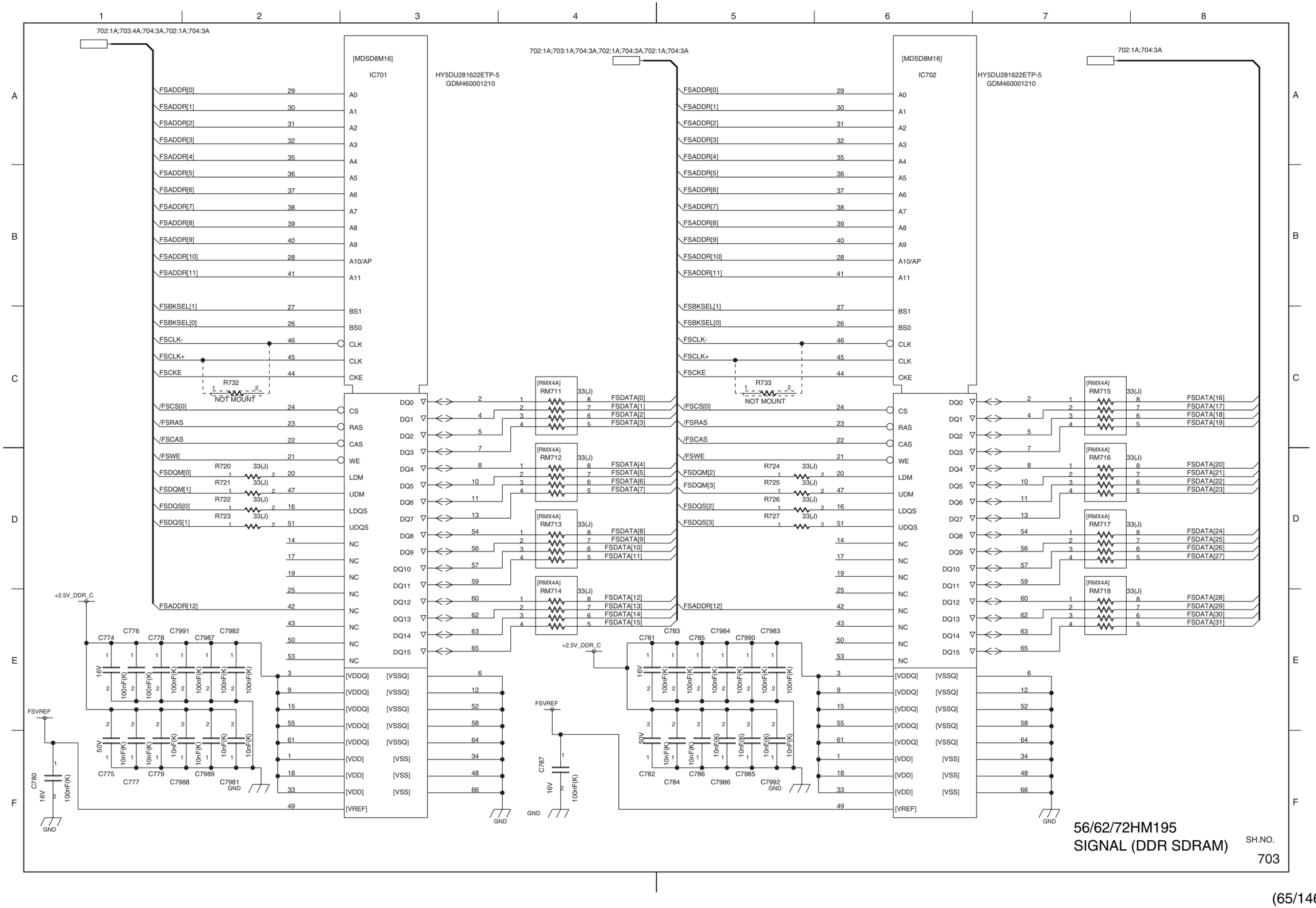
[U8532]
5/9
IC700

FSDATA[15] FSDATA[14] FSDATA[13] FSDATA[12] — RM700 [RMX4A] 33(J) — B4 A4 B5 A5
FSDATA[11] FSDATA[10] FSDATA[9] FSDATA[8] — RM701 [RMX4A] 33(J) — B7 A7 B8 A8
FSDATA[7] FSDATA[6] FSDATA[5] FSDATA[4] — RM702 [RMX4A] 33(J) — B9 A9 B10 A10
FSDATA[3] FSDATA[2] FSDATA[1] FSDATA[0] — RM703 [RMX4A] 33(J) — B12 A12 B13 A13
FSDATA[31] FSDATA[30] FSDATA[29] FSDATA[28] — RM704 [RMX4A] 33(J) — B15 A15 B16 A16
FSDATA[27] FSDATA[26] FSDATA[25] FSDATA[24] — RM705 [RMX4A] 33(J) — B18 A18 B19 A19
FSDATA[23] FSDATA[22] FSDATA[21] FSDATA[20] — RM706 [RMX4A] 33(J) — B20 A20 B21 A21
FSDATA[19] FSDATA[18] FSDATA[17] FSDATA[16] — RM737 [RMX4A] 33(J) — B23 A23 B24 A24

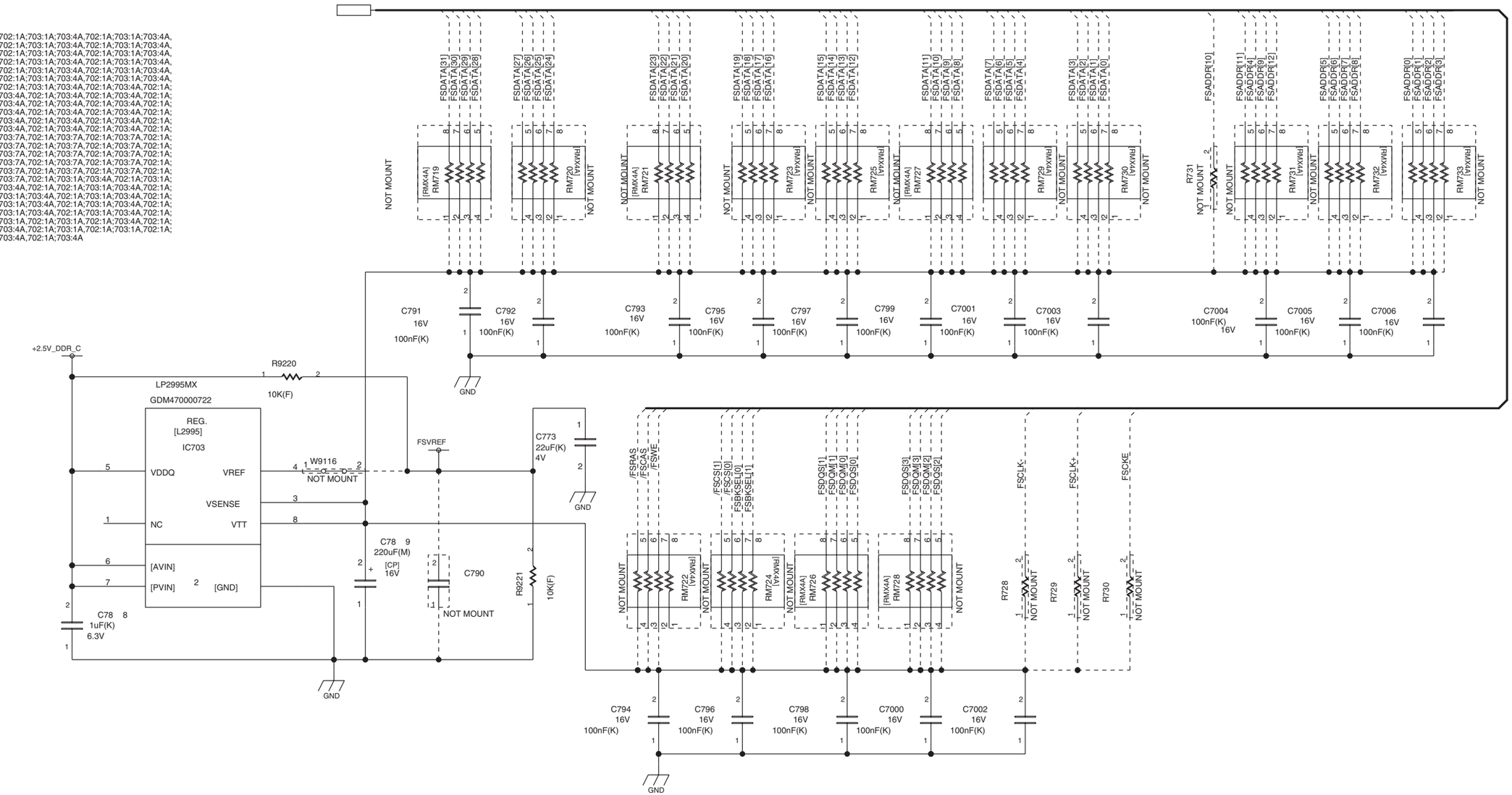
FSDATA0	FSBKSEL1	C20	R736 33(J) FSBKSEL[1]
FSDATA1	FSBKSEL0	C21	R735 33(J) FSBKSEL[0]
FSDATA2	FSCKE	C4	R734 33(J) FSCKE
FSDATA3	FSRAS	C24	[RMX4A] RM707 33(J) /FSRAS
FSDATA4	FSCAS	D24	/FSCAS
FSDATA5	FSWE	C23	/FSWE
FSDATA6			
FSDATA7	FSDQM3	B22	R740 33(J) FSDQM[2]
FSDATA8	FSDQM2	B17	R739 33(J) FSDQM[3]
FSDATA9	FSDQM1	A11	R738 33(J) FSDQM[0]
FSDATA10	FSDQM0	A6	R737 33(J) FSDQM[1]
FSDATA11	FSDQS3	A22	R744 33(J) FSDQS[2]
FSDATA12	FSDQS2	A17	R743 33(J) FSDQS[3]
FSDATA13	FSDQS1	B11	R742 33(J) FSDQS[0]
FSDATA14	FSDQS0	B6	R741 33(J) FSDQS[1]
FSDATA15	FSCS1	C22	R716 33(J) /FSCS[1]
FSDATA16	FSCS0	D21	R717 33(J) /FSCS[0]
FSDATA17	FSCLKn	C5	R718 33(J) FSCLK-
FSDATA18	FSCLKp	D5	R719 33(J) FSCLK+
FSDATA19			
FSDATA20	FSADDR12	C11	[RMX4A] RM708 33(J) FSADDR[11]
FSDATA21	FSADDR11	C14	FSADDR[4]
FSDATA22	FSADDR10	D16	FSADDR[9]
FSDATA23	FSADDR9	C12	FSADDR[12]
FSDATA24	FSADDR8	C6	R707 33(J) FSADDR[10]
FSDATA25	FSADDR7	C7	FSADDR[8]
FSDATA26	FSADDR6	C8	RM709 [RMX4A] 33(J) FSADDR[7] FSADDR[6] FSADDR[5]
FSDATA27	FSADDR5	C10	
FSDATA28	FSADDR4	C13	
FSDATA29	FSADDR3	C15	
FSDATA30	FSADDR2	C16	FSADDR[3]
FSDATA31	FSADDR1	C17	RM710 [RMX4A] 33(J) FSADDR[2] FSADDR[1] FSADDR[0]
	FSADDR0	C18	

56/62/72HM195
SIGNAL (FLI8532 DDR I/F)

SH.NO.
702

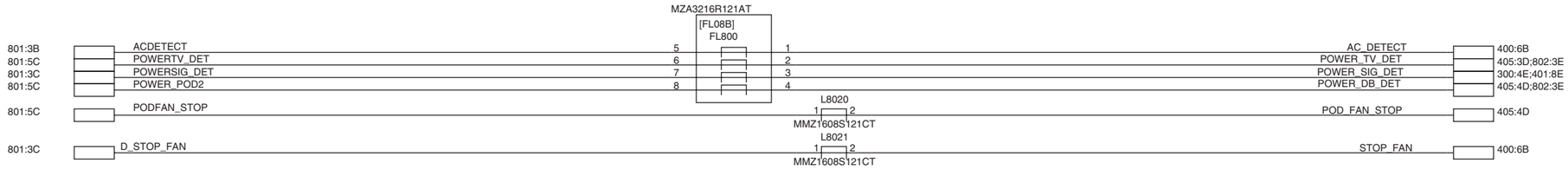

702:1A;703:4A;704:3A,702:1A;704:3A
[MDSD8M16]
IC701
HY5DU281622ETP-5
GDM460001210
FSADDR[0]
FSADDR[1]
FSADDR[2]
FSADDR[3]
FSADDR[4]
FSADDR[5]
FSADDR[6]
FSADDR[7]
FSADDR[8]
FSADDR[9]
FSADDR[10]
FSADDR[11]
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10/AP
A11
FSBKSEL[1]
FSBKSEL[0]
BS1
BS0
FSCLK-
FSCLK+
FSCKE
CLK
CLK
CKE
R732
NOT MOUNT
/FSCS[0]
/FSRAS
/FSCAS
/FSWE
CS
RAS
CAS
WE
R720 33(J)
R721 33(J)
R722 33(J)
R723 33(J)
FSDQM[0]
FSDQM[1]
FSDQS[0]
FSDQS[1]
LDM
UDM
LDQS
UDQS
FSADDR[12]
NC
[VDDQ]
[VSSQ]
[VDD]
[VSS]
[VREF]
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
[RMX4A]
RM711
RM712
RM713
RM714
33(J)
FSDATA[0]
FSDATA[1]
FSDATA[2]
FSDATA[3]
FSDATA[4]
FSDATA[5]
FSDATA[6]
FSDATA[7]
FSDATA[8]
FSDATA[9]
FSDATA[10]
FSDATA[11]
FSDATA[12]
FSDATA[13]
FSDATA[14]
FSDATA[15]
+2.5V_DDR_C
C774
C776
C778
C7991
C7987
C7982
C775
C777
C779
C7988
C7989
C7981
16V
50V
100nF(K)
10nF(K)
GND
FSVREF
C780
C787
C781
C783
C785
C7984
C7990
C7983
C782
C784
C786
C7986
C7985
C7992
702:1A;703:1A;704:3A,702:1A;704:3A,702:1A;704:3A
[MDSD8M16]
IC702
HY5DU281622ETP-5
GDM460001210
R733
NOT MOUNT
R724 33(J)
R725 33(J)
R726 33(J)
R727 33(J)
[RMX4A]
RM715
RM716
RM717
RM718
FSDATA[16]
FSDATA[17]
FSDATA[18]
FSDATA[19]
FSDATA[20]
FSDATA[21]
FSDATA[22]
FSDATA[23]
FSDATA[24]
FSDATA[25]
FSDATA[26]
FSDATA[27]
FSDATA[28]
FSDATA[29]
FSDATA[30]
FSDATA[31]
702:1A;704:3A
56/62/72HM195
SIGNAL (DDR SDRAM)
SH.NO.
703

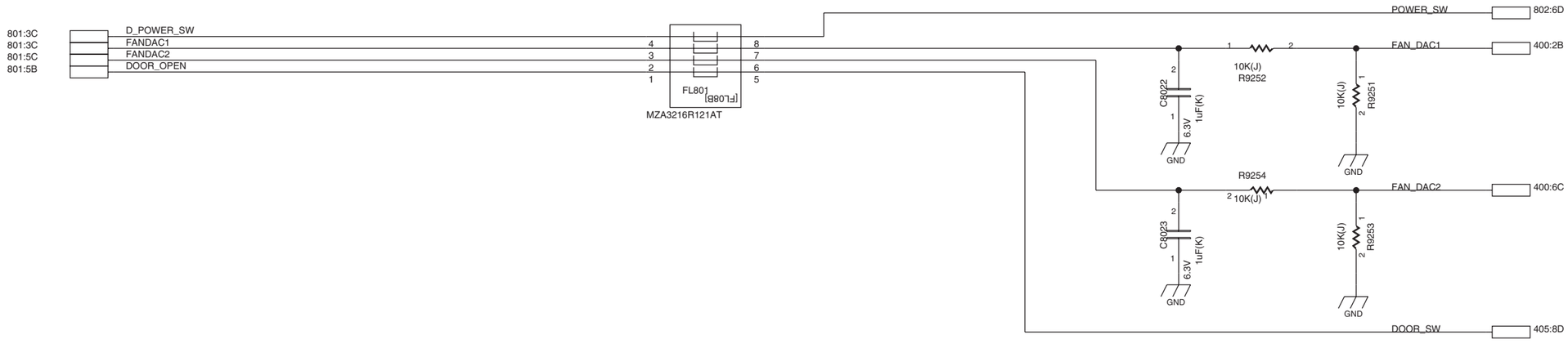
702:1A;703:1A;703:4A,702:1A;703:1A;703:4A,
702:1A;703:1A;703:4A,702:1A;703:1A;703:4A,
702:1A;703:1A;703:4A,702:1A;703:1A;703:4A,
702:1A;703:1A;703:4A,702:1A;703:1A;703:4A,
702:1A;703:1A;703:4A,702:1A;703:1A;703:4A,
702:1A;703:1A;703:4A,702:1A;703:4A,702:1A;
703:4A,702:1A;703:4A,702:1A;703:4A,702:1A;
703:4A,702:1A;703:4A,702:1A;703:4A,702:1A;
703:4A,702:1A;703:4A,702:1A;703:4A,702:1A;
703:4A,702:1A;703:4A,702:1A;703:4A,702:1A;
703:7A,702:1A;703:7A,702:1A;703:7A,702:1A;
703:7A,702:1A;703:7A,702:1A;703:7A,702:1A;
703:7A,702:1A;703:7A,702:1A;703:7A,702:1A;
703:7A,702:1A;703:7A,702:1A;703:7A,702:1A;
703:7A,702:1A;703:1A;703:4A,702:1A;703:1A;
703:4A,702:1A,702:1A;703:1A;703:4A,702:1A;
703:1A;703:4A,702:1A;703:1A;703:4A,702:1A;
703:1A;703:4A,702:1A;703:1A;703:4A,702:1A;
703:1A;703:4A,702:1A;703:1A;703:4A,702:1A;
703:4A,702:1A;703:1A,702:1A;703:1A,702:1A;
703:4A,702:1A;703:4A



56/62/72HM195
SIGNAL (DDR TERMINATION)

SH.NO.
704





56/62/72HM195
SIGNAL (POWER I/F)

SH.NO.
800

51.MALIBU 3.3V	1.MALIBU 3.3V
52.MALIBU 3.3V	2.GND
53.GND	3.GND
54.18V	4.18V
55.GND	5.GND
56.9V1	6.5V1
57.GND	7.GND
58.ACDETECT	8.DOOR_OPEN
59.FANDAC1	9.FANDAC2
60.STOP_FAN	10.PODFAN_STOP
61.POWERSIG_DET	11.POWER_POD2
62.POWER_SW	12.POWER_TV
63.GND	13.GND
64.GND	14.GND
65.VCK	15.HD
66.VD	16.GND
67.D_SEINEY1	17.D_SEINEY0
68.GND	18.GND
69.D_SEINEY3	19.D_SEINEY2
70.GND	20.GND
71.D_SEINEY5	21.D_SEINEY4
72.GND	22.GND
73.D_SEINEY7	23.D_SEINEY6
74.GND	24.GND
75.D_SEINEC1	25.D_SEINEC0
76.GND	26.GND
77.D_SEINEC3	27.D_SEINEC2
78.GND	28.GND
79.D_SEINEC5	29.D_SEINEC4
80.GND	30.GND
81.D_SEINEC7	31.D_SEINEC6
82.GND	32.GND
83.NC(Debug_TXD)	33.NC(Debug_RXD)
84.GND	34.GND
85.TXD	35.RXD
86.NC	36.GND
87.NC	37.HEAD
88.USB Boot	38.GND
89.DB_RST	39.SWupgrade
90.GND	40.GND
91.GND	41.GND
92.GND	42.GND
93.R_DB	43.L_DB
94.GND	44.GND
95.L_BS	45.R_BS
96.GND	46.GND
97.R_MPG	47.L_MPG
98.GND	48.GND
99.DIGITAL_V_IN	49.V_BS
100.V_SIG_GND	50.V_BS_GND

PANEL TYPE 720P : NOT MOUNT

FL501
C5007,C5009,C5010

NFE31PT222Z1E9L
[FL]
FL501

ML+3.3V
C5009 10V 1uF(K)
C5010 [CP] 6.3V 120uF(M)
C5007 16V 100nF(K)
GND

GDM220001539
1-5175474-0
[C100B2]
PJ610

800:1B ACDETECT
800:1D FANDAC1
800:1B D_STOP_FAN
800:1B POWERSIG_DET
800:1D D_POWER_SW

301:2F D_SEINECLK
301:2F D_SEINEVS
301:3C D_SEINEY1
301:3C D_SEINEY3
301:3C D_SEINEY5
301:3C D_SEINEY7
301:3B D_SEINEC1
301:3B D_SEINEC3
301:3B D_SEINEC5
301:3B D_SEINEC7

301:3F D_BRXD

601:1D R_DB
600:5D L_BS
601:8D R_MPEG

200:2B DIGITAL_V_IN
200:2B V_SIG_GND

33(J) R2070

800:1D DOOR_OPEN
800:1D FANDAC2
800:1B PODFAN_STOP
800:1B POWER_POD2
800:1B POWERTV_DET

301:2E D_SEINEHS
301:3C D_SEINEY0
301:3C D_SEINEY2
301:3C D_SEINEY4
301:3C D_SEINEY6
301:3B D_SEINEC0
301:3B D_SEINEC2
301:3B D_SEINEC4
301:3B D_SEINEC6

301:3F D_BTXD
301:3F D_HEAD_DB

601:1C L_DB
600:5D R_BS
601:8D L_MPEG

L8032 BLM21PG220SN1D
L8031 BLM21PG220SN1D
L8030 BLM21PG220SN1D
18V 9V 5V1

C8003 [CP] 100uF(M) 16 V
C8004 25V 100nF(K)
C8005 16 V 100nF(K)
C8006 16 V 100nF(K)
GND

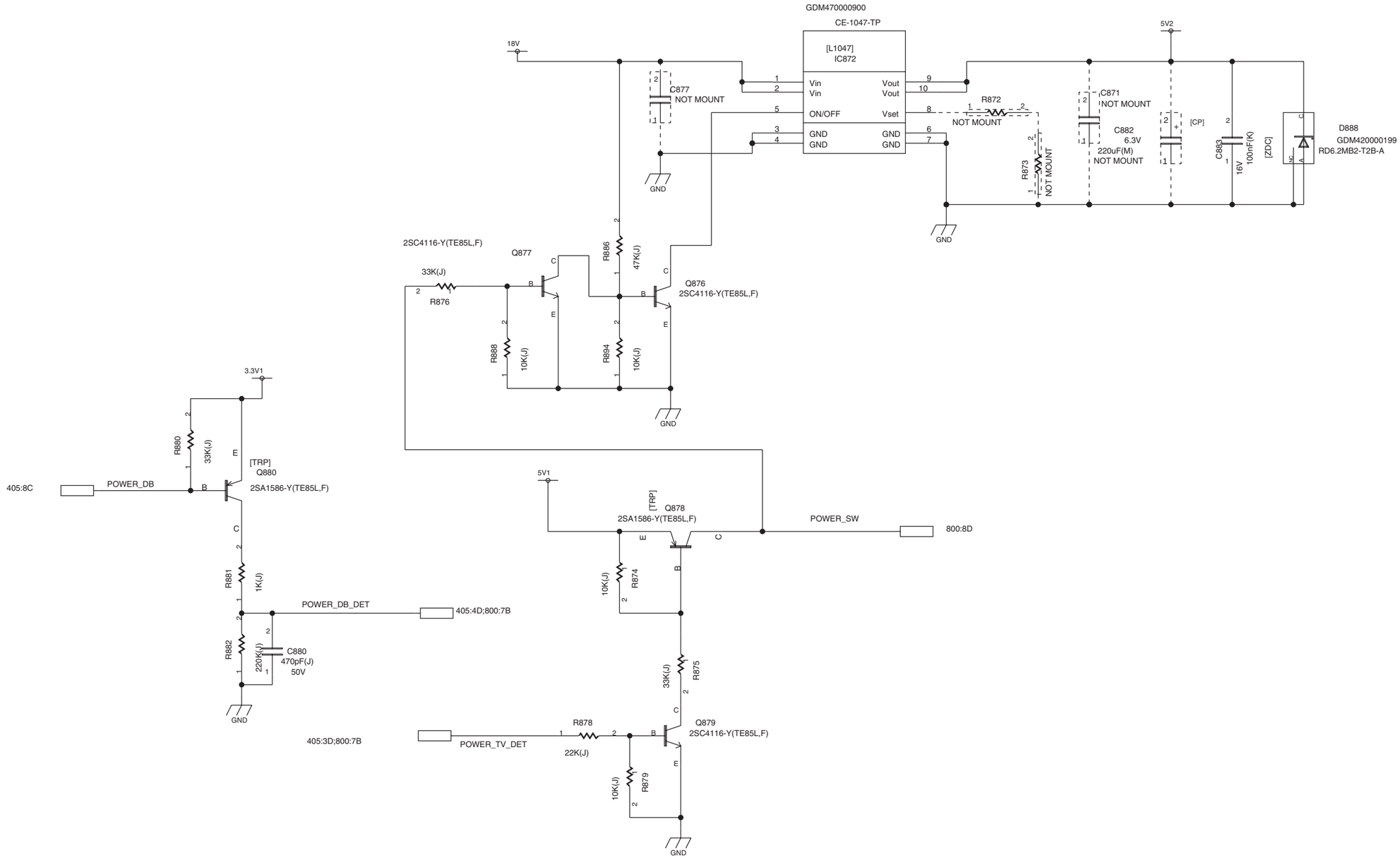
RM314 [RMX4A] 33(J)
400:8B HOST_RST
300:4C SEINE_USB
400:6 UPDATE

33(J) R2071
200:2B V_BS
200:2B V_BS_GND

W9117
0(X)
GND GND_A

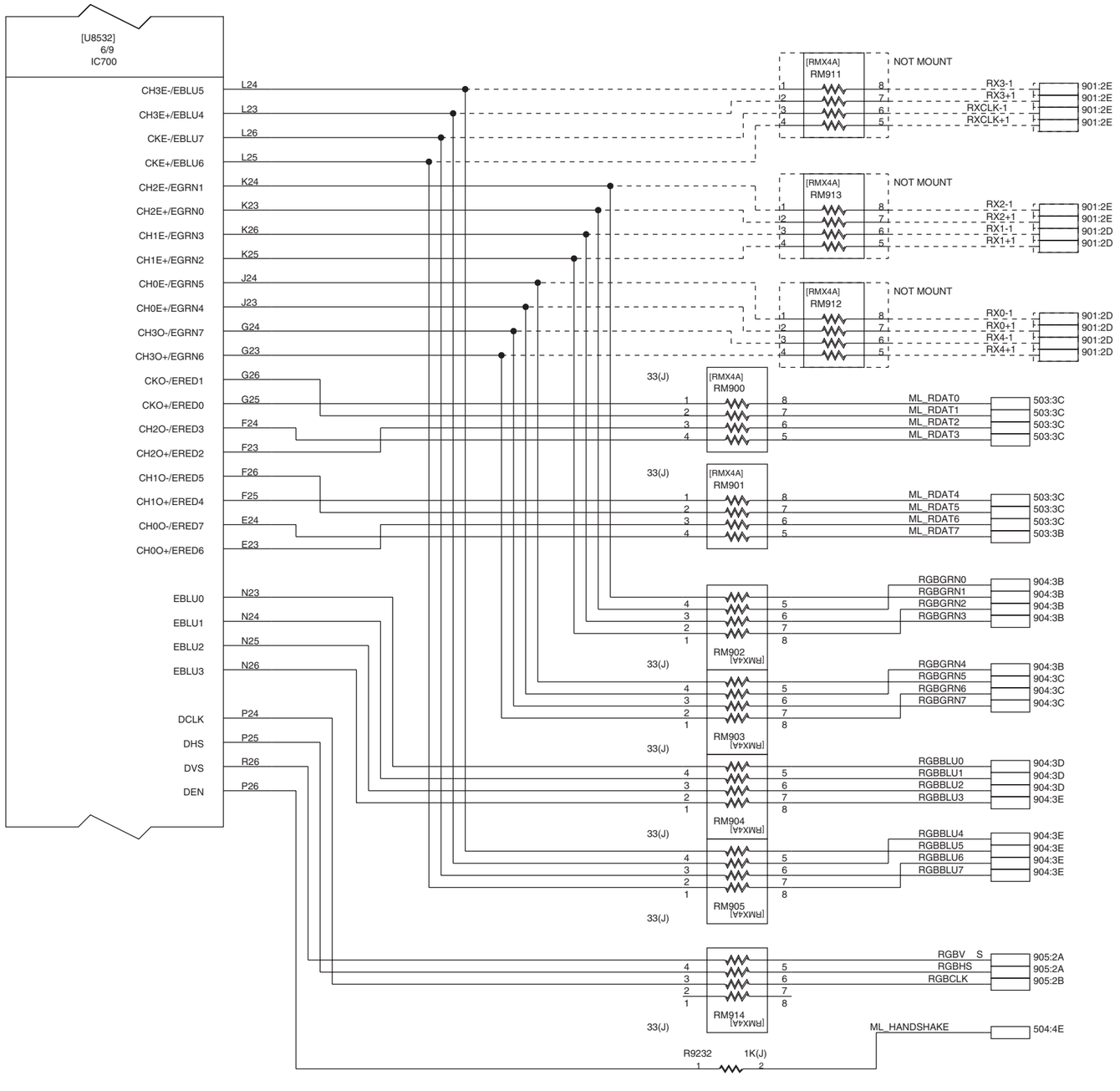
56/62/72HM195
SIGNAL (DIGITAL CONNECTOR)

SH.NO.
801



56/62/72HM195
SIGNAL (DC/DC_CONVERTER)

SH.NO.
802



PANEL TYPE 720P : MOUNT

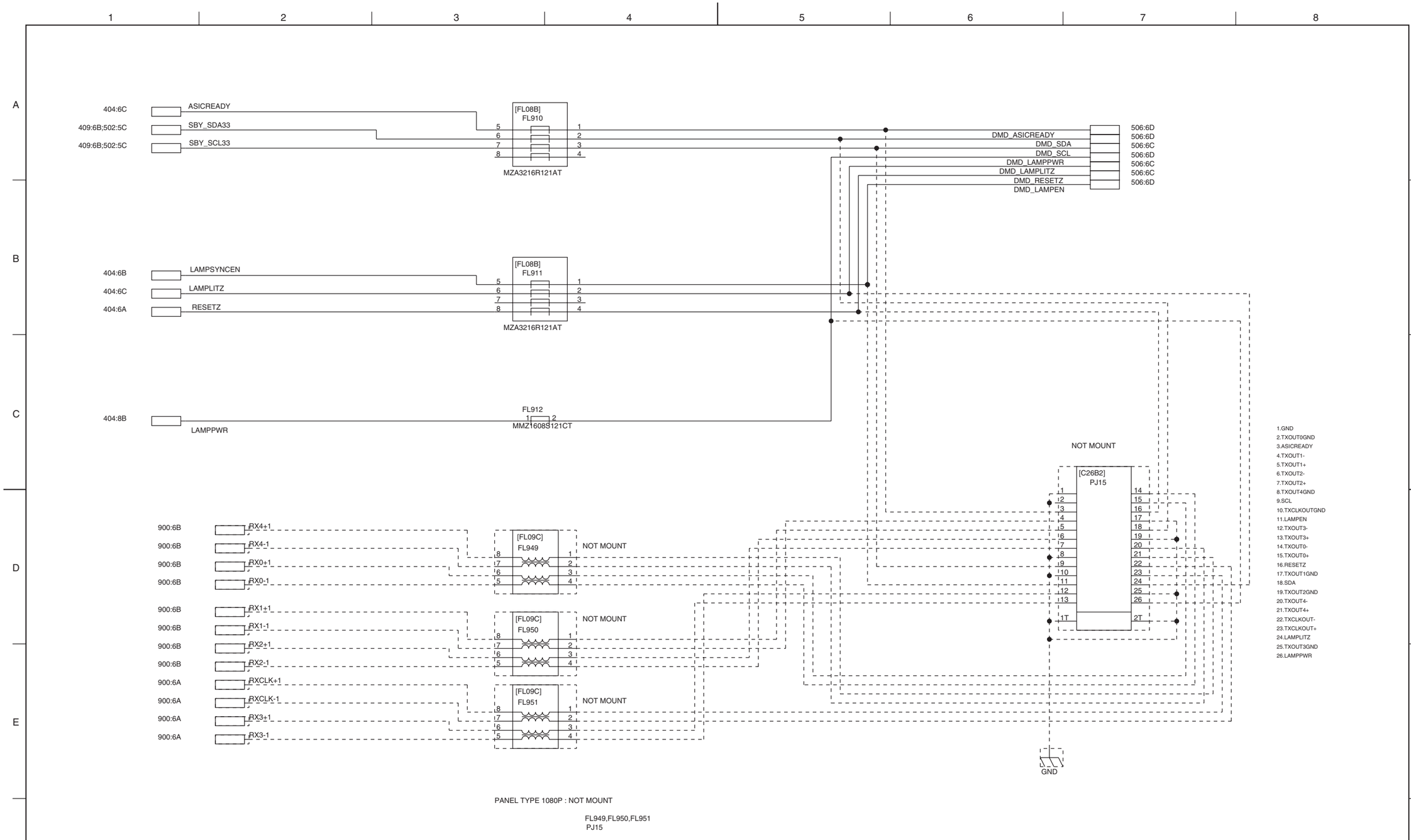
RM911 !A RM913

PANEL TYPE 1080P : MOUNT

RM900 !A RM905
RM914
R9232

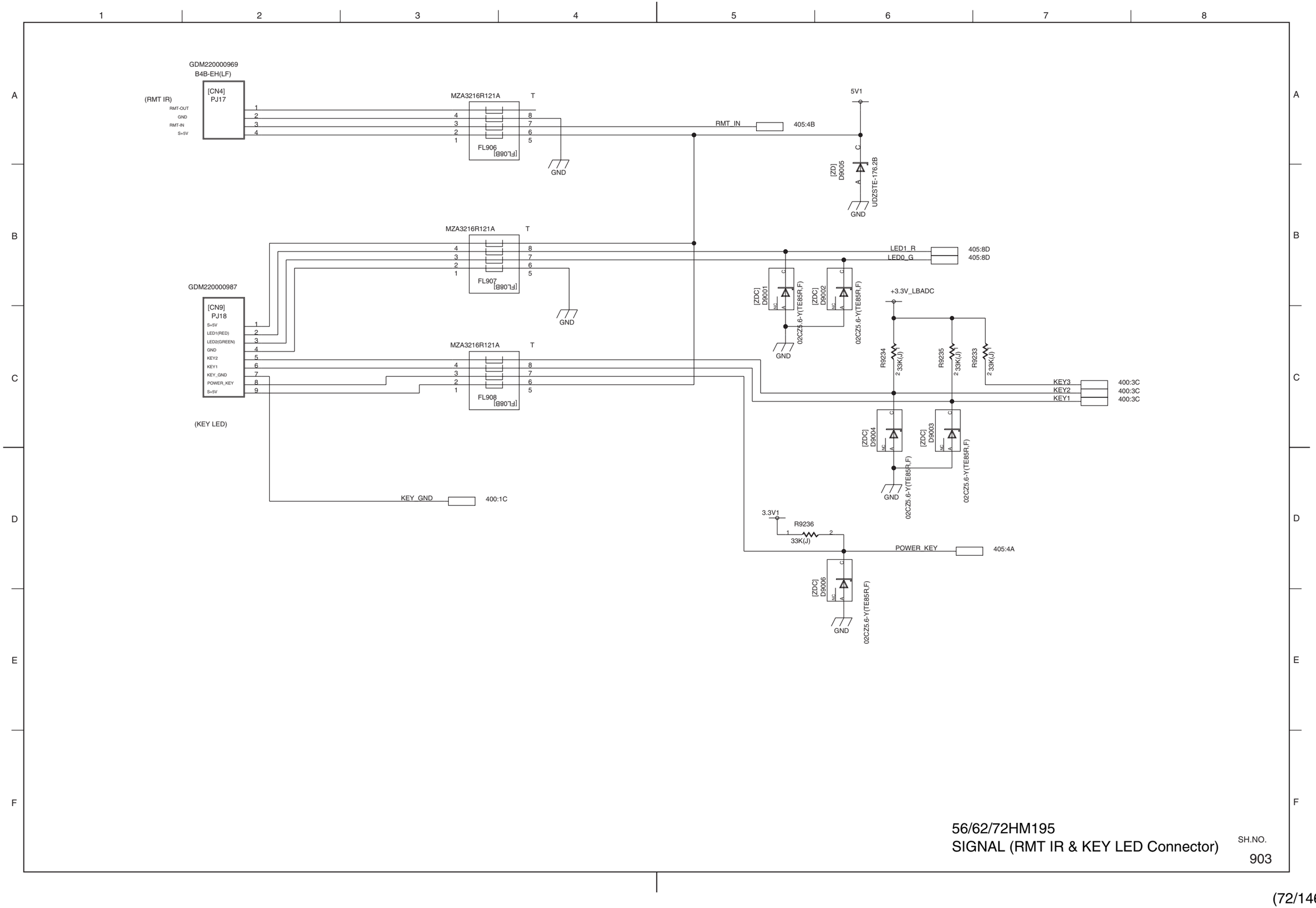
56/62/72HM195
SIGNAL (FLI8532 LVDS_OUT)

SH.NO.
900



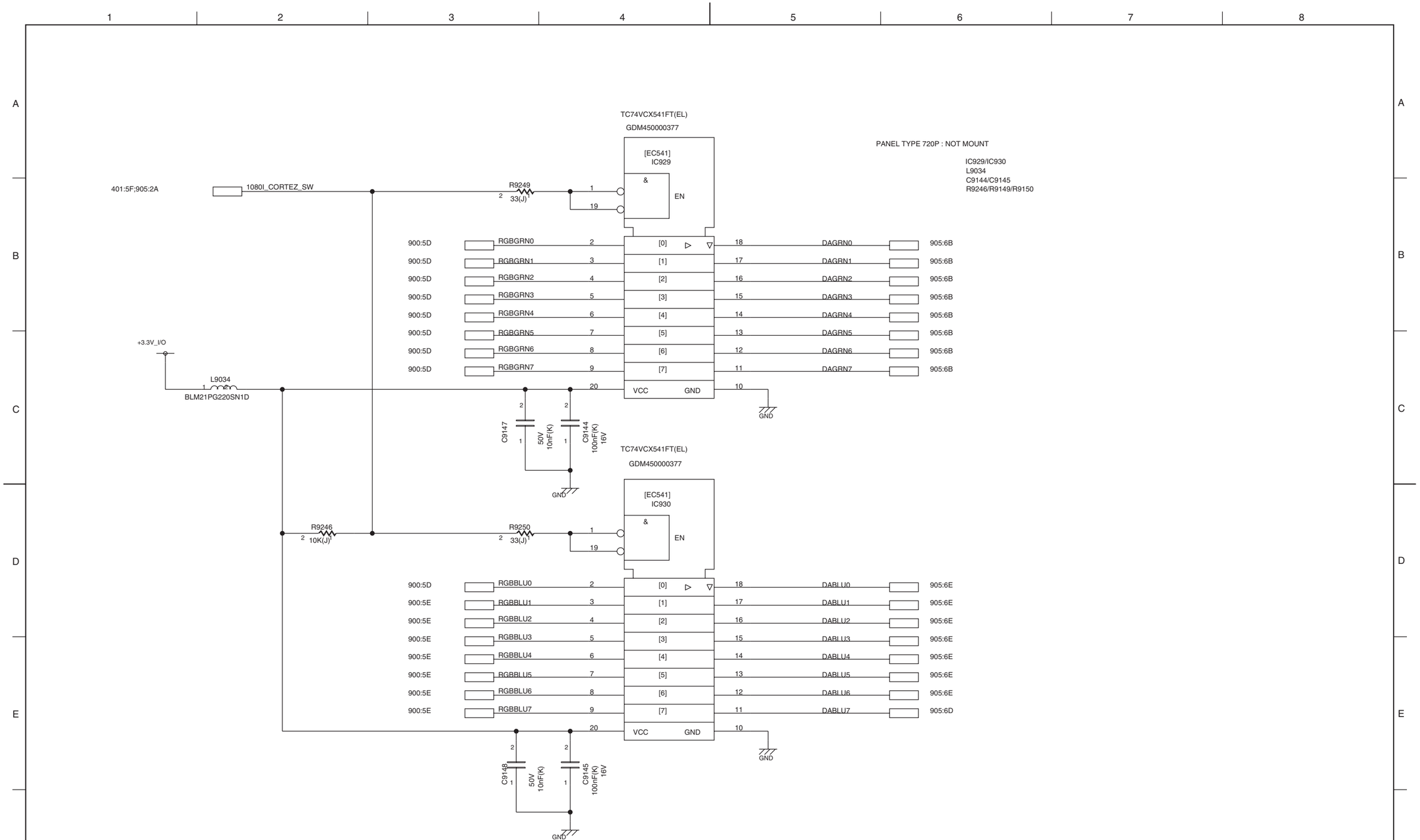
56/62/72HM195
SIGNAL (MDR CONNECTOR)

SH.NO.
901



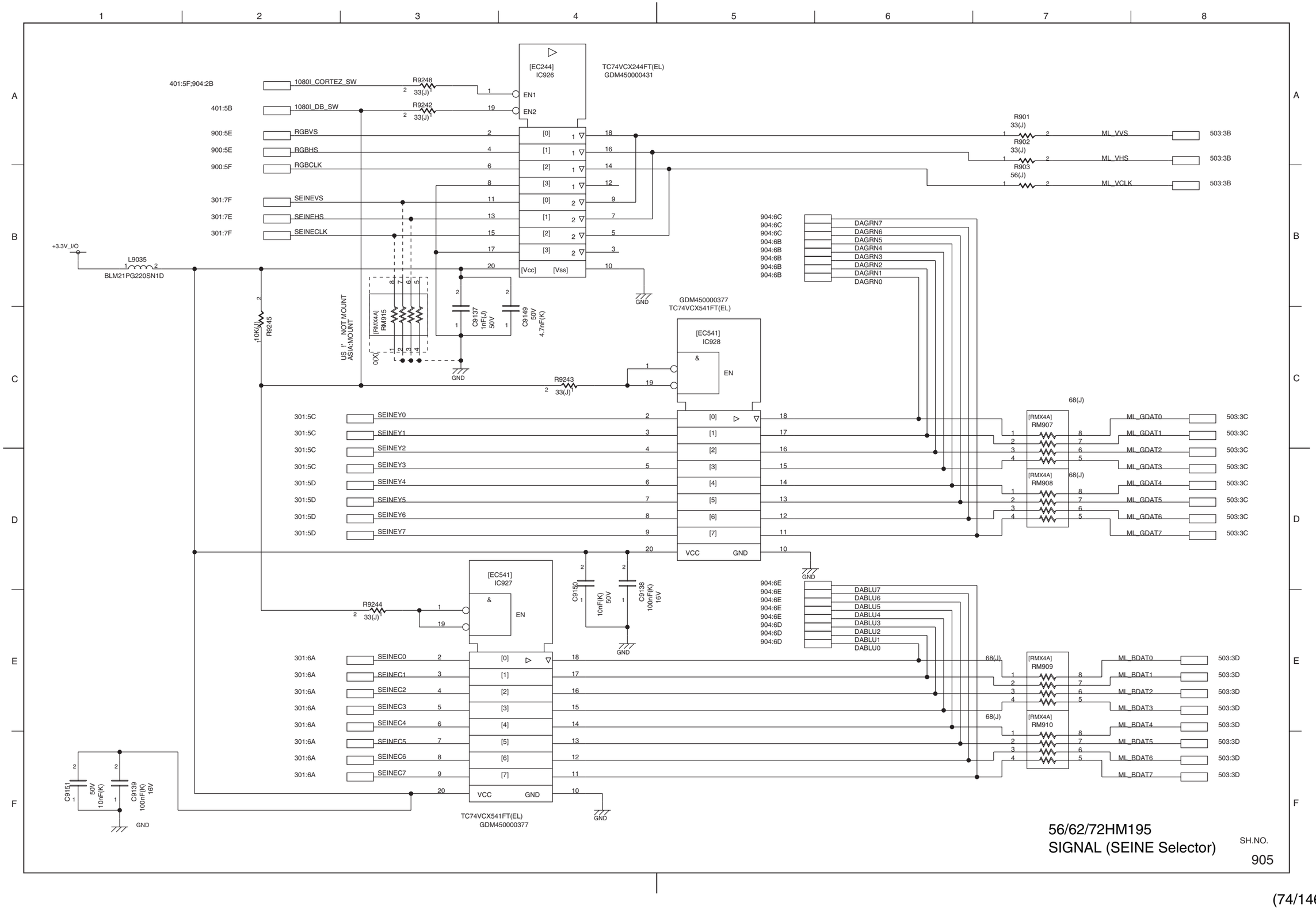
56/62/72HM195
SIGNAL (RMT IR & KEY LED Connector)

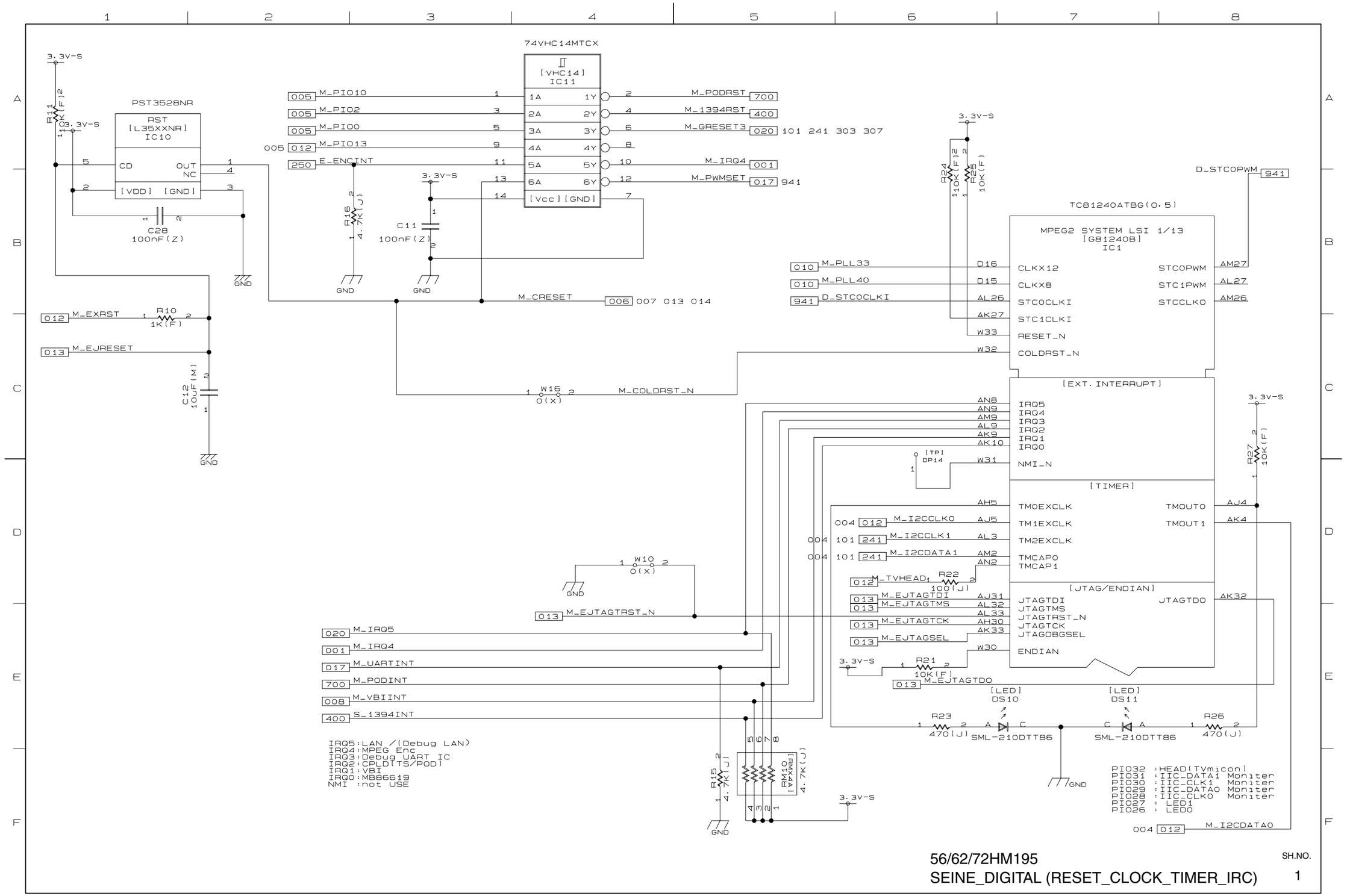
SH.NO.
903



56/62/72HM195
SIGNAL (CORTEZ Selector)

SH.NO.
904


[EC244]
IC926
TC74VCX244FT(EL)
GDM450000431
401:5F;904:2B
1080I_CORTEZ_SW
R9248
33(J)
401:5B
1080I_DB_SW
R9242
33(J)
EN1
EN2
900:5E
RGBVS
900:5E
RGBHS
900:5F
RGBCLK
301:7F
SEINEVS
301:7E
SEINEHS
301:7F
SEINECLK
[0]
[1]
[2]
[3]
[Vcc]
[Vss]
R901
33(J)
R902
33(J)
R903
56(J)
ML_VVS
ML_VHS
ML_VCLK
503:3B
+3.3V_I/O
L9035
BLM21PG220SN1D
GND
10K(J)
R9245
US_I' NOT MOUNT
ASIA:MOUNT
[RMX4A]
RM915
C9137
1nF(J)
50V
C9149
50V
4.7nF(K)
904:6C
904:6B
DAGRN7
DAGRN6
DAGRN5
DAGRN4
DAGRN3
DAGRN2
DAGRN1
DAGRN0
GDM450000377
TC74VCX541FT(EL)
[EC541]
IC928
&
EN
R9243
33(J)
301:5C
301:5D
SEINEY0
SEINEY1
SEINEY2
SEINEY3
SEINEY4
SEINEY5
SEINEY6
SEINEY7
VCC
GND
68(J)
[RMX4A]
RM907
RM908
ML_GDAT0
ML_GDAT1
ML_GDAT2
ML_GDAT3
ML_GDAT4
ML_GDAT5
ML_GDAT6
ML_GDAT7
503:3C
[EC541]
IC927
R9244
33(J)
C9150
10nF(K)
50V
C9138
100nF(K)
16V
904:6E
904:6D
DABLU7
DABLU6
DABLU5
DABLU4
DABLU3
DABLU2
DABLU1
DABLU0
301:6A
SEINEC0
SEINEC1
SEINEC2
SEINEC3
SEINEC4
SEINEC5
SEINEC6
SEINEC7
RM909
RM910
ML_BDAT0
ML_BDAT1
ML_BDAT2
ML_BDAT3
ML_BDAT4
ML_BDAT5
ML_BDAT6
ML_BDAT7
503:3D
C9151
50V
10nF(K)
C9139
100nF(K)
16V
TC74VCX541FT(EL)
GDM450000377
56/62/72HM195
SIGNAL (SEINE Selector)
SH.NO.
905


74VHC14MTCX
[VHC14]
IC11
PST3528NR
RST
[L35XXNR]
IC10
CD
OUT
NC
[VDD]
[GND]
3.3V-S
GND
M_PIO10
M_PIO2
M_PIO0
M_PIO13
E_ENCINT
M_PODRST
M_1394RST
M_GRESET3
M_IRQ4
M_PWMSET
M_CRESET
M_EXRST
M_EJRESET
M_COLDRST_N
M_PLL33
M_PLL40
D_STCOCLKI
D_STCOPWM
TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 1/13
[G81240B]
IC1
CLKX12
CLKX8
STCOCLKI
STC1CLKI
RESET_N
COLDRST_N
STCOPWM
STC1PWM
STCCLKO
[EXT. INTERRUPT]
IRQ5
IRQ4
IRQ3
IRQ2
IRQ1
IRQ0
NMI_N
[TIMER]
TM0EXCLK
TM1EXCLK
TM2EXCLK
TMCAP0
TMCAP1
TMOUT0
TMOUT1
[JTAG/ENDIAN]
JTAGTDI
JTAGTMS
JTAGTRST_N
JTAGTCK
JTAGDBGSEL
ENDIAN
JTAGTDO
M_I2CCLK0
M_I2CCLK1
M_I2CDATA1
M_TVHEAD
M_EJTAGTDI
M_EJTAGTMS
M_EJTAGTCK
M_EJTAGSEL
M_EJTAGTDO
M_EJTAGTRST_N
M_I2CDATA0
[TP]
DP14
[LED]
DS10
DS11
SML-210DTT86
M_IRQ5
M_IRQ4
M_UARTINT
M_PODINT
M_VBIINT
S_1394INT
IRQ5:LAN /(Debug LAN)
IRQ4:MPEG Enc
IRQ3:Debug UART IC
IRQ2:CPLD(TS/POD)
IRQ1:VBI
IRQ0:MB86619
NMI :not USE
PIO32 :HEAD(TVmicon)
PIO31 :IIC_DATA1 Moniter
PIO30 :IIC_CLK1 Moniter
PIO29 :IIC_DATA0 Moniter
PIO28 :IIC_CLK0 Moniter
PIO27 : LED1
PIO26 : LED0
R11 10K(F)
R10 1K(F)
R16 4.7K(J)
R15 4.7K(J)
R24 10K(F)
R25 10K(F)
R27 10K(F)
R21 10K(F)
R22 100(J)
R23 470(J)
R26 470(J)
C28 100nF(Z)
C11 100nF(Z)
C12 10UF(M)
W15 0(X)
W10 0(X)
RM10 [RM4A7]
56/62/72HM195
SEINE_DIGITAL (RESET_CLOCK_TIMER_IRC)
SH.NO.
1

TC81240ATBG(0.5)

MPEG2 SYSTEM LSI 4/13
[G81240B]
IC1

[SLOW-BUS]

SBDAT15 SBDAT14 SBDAT13 SBDAT12 SBDAT11 SBDAT10 SBDAT9 SBDAT8 SBDAT7 SBDAT6 SBDAT5 SBDAT4 SBDAT3 SBDAT2 SBDAT1 SBDAT0

SBACK_N R30

SBADD25 A32 M_SBAI25
SBADD24 B33 M_SBAI24
SBADD23 B32 M_SBAI23
SBADD22 B31 M_SBAI22
SBADD21 C30 M_SBAI21
SBADD20 C31 M_SBAI20
SBADD19 C32 M_SBAI19
SBADD18 C33 M_SBAI18
SBADD17 D33 M_SBAI17
SBADD16 D32 M_SBAI16
SBADD15 D31 M_SBAI15
SBADD14 D30 M_SBAI14
SBADD13 E29 M_SBAI13
SBADD12 E30 M_SBAI12
SBADD11 E31 M_SBAI11
SBADD10 E32 M_SBAI10
SBADD9 E33 M_SBAI9
SBADD8 F33 M_SBAI8
SBADD7 F32 M_SBAI7
SBADD6 F31 M_SBAI6
SBADD5 F30 M_SBAI5
SBADD4 F29 M_SBAI4
SBADD3 G30 M_SBAI3
SBADD2 G31 M_SBAI2
SBADD1 G32 M_SBAI1

SBWE_N A31 M_SBWE-1
SBOE_N L33 M_SBOE-1

SBCE7_N M33 M_SBCE7-1
SBCE6_N M32 M_SBCE6-1
SBCE5_N M31 M_SBCE5-1
SBCE4_N M30 M_SBCE4-1
SBCE3_N N30 M_SBCE3-1
SBCE2_N N31 M_SBCE2-1
SBCE1_N N32 M_SBCE1-1
SBCE0_N N33 M_SBCE0-1

SBBE1_N P32 M_SBBE1-1
SBBE0_N P33 M_SBBE0-1

SBCLK1 P31 M_SBCLK1-1
SBCLKO P30 M_SBCLKO-1

M_SBDI15 G33
M_SBDI14 H33
M_SBDI13 H32
M_SBDI12 H31
M_SBDI11 H30
M_SBDI10 J30
M_SBDI9 J31
M_SBDI8 J32
M_SBDI7 J33
M_SBDI6 K33
M_SBDI5 K32
M_SBDI4 K31
M_SBDI3 K30
M_SBDI2 L30
M_SBDI1 L31
M_SBDI0 L32

006 007 250 400 701 M_SBD15 8 — [RMX4A] RM15 — 1 M_SBDI15
006 007 250 400 701 M_SBD14 7 — 2 M_SBDI14
006 007 250 400 701 M_SBD13 6 — 3 M_SBDI13
006 007 250 400 701 M_SBD12 5 — 4 M_SBDI12
33(J)

006 007 250 400 701 M_SBD11 8 — [RMX4A] RM16 — 1 M_SBDI11
006 007 250 400 701 M_SBD10 7 — 2 M_SBDI10
006 007 250 400 701 M_SBD9 6 — 3 M_SBDI9
006 007 250 400 701 M_SBD8 5 — 4 M_SBDI8
33(J)

006 007 017 400 701 M_SBD7 8 — [RMX4A] RM17 — 1 M_SBDI7
006 007 017 400 701 M_SBD6 7 — 2 M_SBDI6
006 007 017 400 701 M_SBD5 6 — 3 M_SBDI5
006 007 017 400 701 M_SBD4 5 — 4 M_SBDI4
33(J)

006 007 017 400 701 M_SBD3 8 — [RMX4A] RM18 — 1 M_SBDI3
006 007 017 400 701 M_SBD2 7 — 2 M_SBDI2
006 007 017 400 701 M_SBD1 6 — 3 M_SBDI1
006 007 017 400 701 M_SBD0 5 — 4 M_SBDI0
33(J)

3.3V-S

RM11 [RMX4A] 4.7K(J)
4 5 M_SBDI12
3 6 M_SBDI13
2 7 M_SBDI14
1 8 M_SBDI15

RM12 [RMX4A] 4.7K(J)
4 5 M_SBDI8
3 6 M_SBDI9
2 7 M_SBDI10
1 8 M_SBDI11

RM13 [RMX4A] 4.7K(J)
4 5 M_SBDI4
3 6 M_SBDI5
2 7 M_SBDI6
1 8 M_SBDI7

RM14 [RMX4A] 4.7K(J)
4 5 M_SBDI0
3 6 M_SBDI1
2 7 M_SBDI2
1 8 M_SBDI3

3.3V-S
R29 4.7K(J) 2 1
700 M_SBACK R20 22(J) 2 1

M_SBCE0-1 M_SBCE1-1 M_SBCE3-1 M_SBCE2-1
RM27 [RMX4A] 47(J)
4 5 M_BROMCE 006
3 6 M_EXTROMCE 007
2 7 M_SBCE3 400
1 8 M_SBCE2 700
for IC19(FlashROM). IC20(MaskROM)
for IC18(M-SYSTEM)

M_SBAI25 003
M_SBAI24 003
M_SBAI23 003
M_SBAI22 003
M_SBAI21 003
M_SBAI20 003
M_SBAI19 003
M_SBAI18 003
M_SBAI17 003
M_SBAI16 003
M_SBAI15 003
M_SBAI14 003
M_SBAI13 003
M_SBAI12 003
M_SBAI11 003
M_SBAI9 003
M_SBAI8 003
M_SBAI7 003
M_SBAI6 003
M_SBAI5 003
M_SBAI4 003
M_SBAI3 003
M_SBAI2 003
M_SBAI1 003

RM48 [RMX4A] 47(J)
4 5 M_SBOE4 700 for IC255
3 6 M_SBOE2 400 for IC401.IC140
2 7 M_SBOE3 017 700
1 8 M_SBOE1 006 007 for IC19.IC20

RM49 [RMX4A] 47(J)
4 5 M_SBWE2 400 for IC401.IC140
3 6 M_SBWE4 700 for IC255
2 7 M_SBWE3 017 700
1 8 M_SBWE1 006 007 for IC19.IC20

3.3V-S
R39 1M(J)
R40 1M(J)

& [7W08] IC15
M_SBOE-1 — [1] — 1 2 7
M_SBWE-1 — [2] — 5 6 3
3.3V-S — [VCC][VSS] — 8 4
TC7W08FK(TE85L.F)
C17 100nF(Z) 1 2
GND

[TP] DP18 M_SBCE4-1
[TP] DP13 M_SBCE5-1
[TP] DP17 M_SBCLK1-1

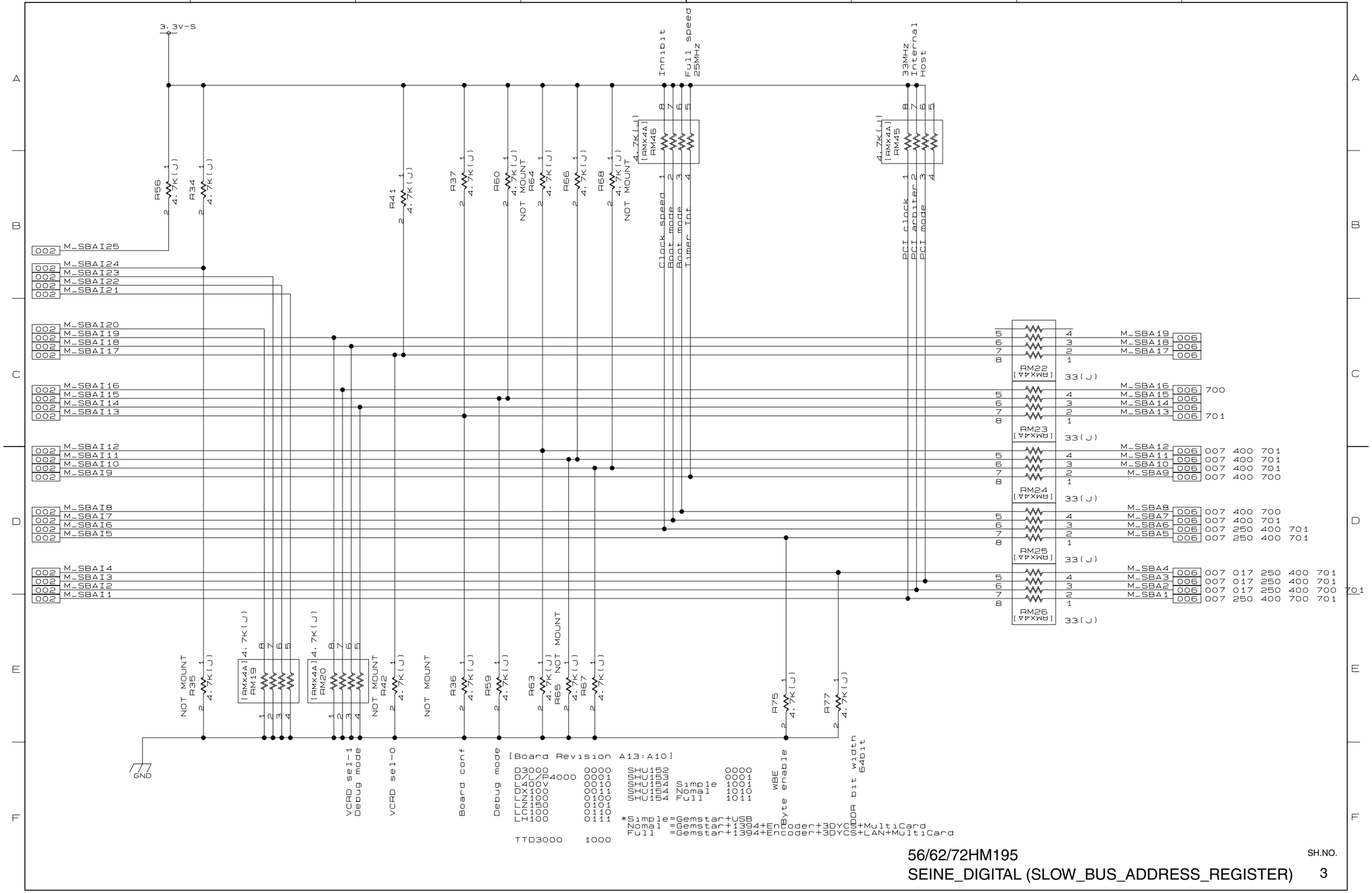
M_SBBE1-1 M_SBBE0-1 M_SBCE6-1 M_SBCE7-1
RM47 [RMX4A] 47(J)
4 5 M_SBBE1 700
3 6 M_SBBE0 700
2 7 M_SBCE6 700
1 8 M_SBCE7 017

M_SBCLKO-1 R38 47(J) 1 2 M_SBCLKO 700

CE0:Boot FLASH
CE1:M-SYSTEM
CE2:uPD61051GD
CE3:MB86619
CE4: N/A
CE5: N/A
CE6:POD PLD
CE7:UART

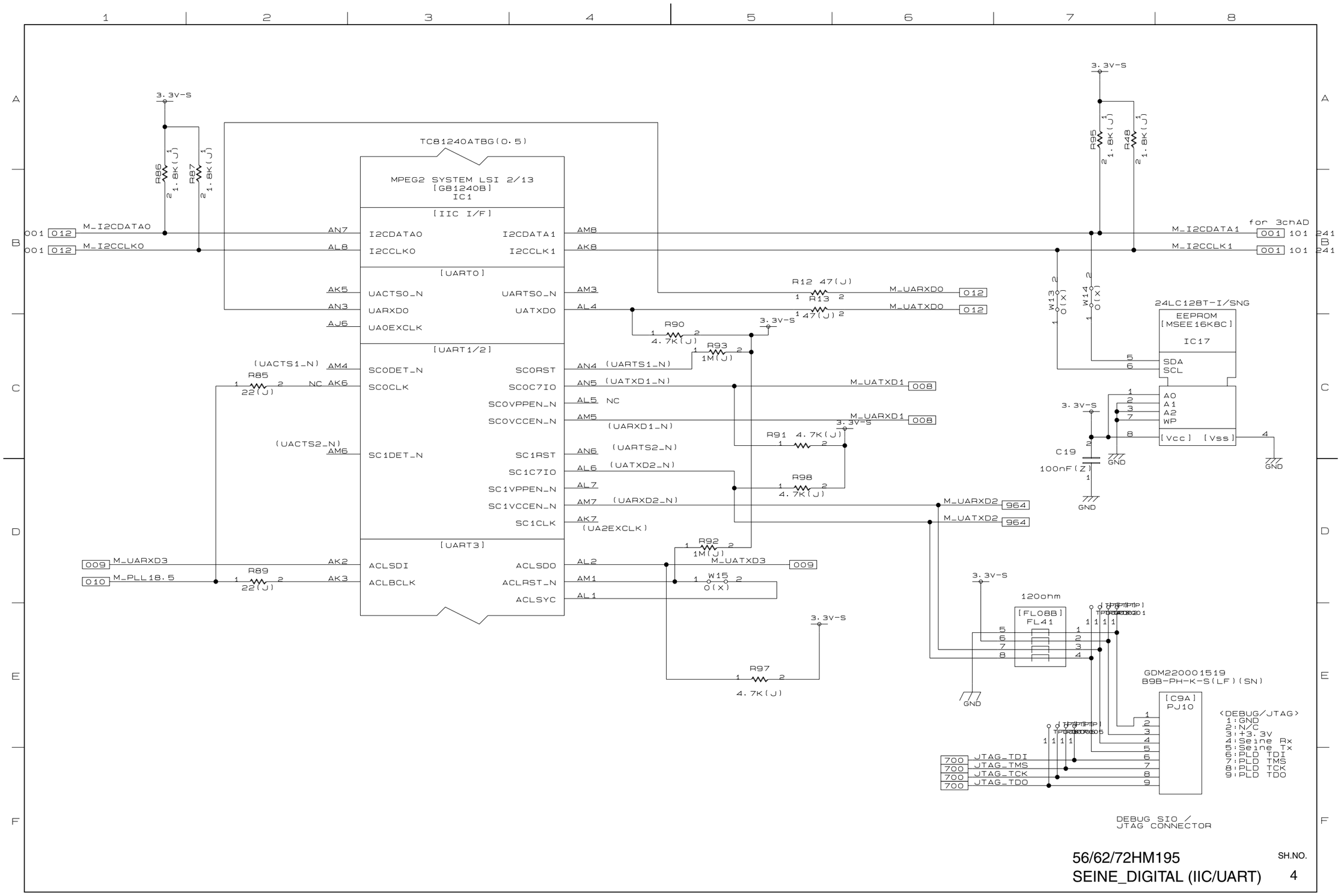
56/62/72HM195
SEINE_DIGITAL (SLOW_BUS)

SH.NO. 2



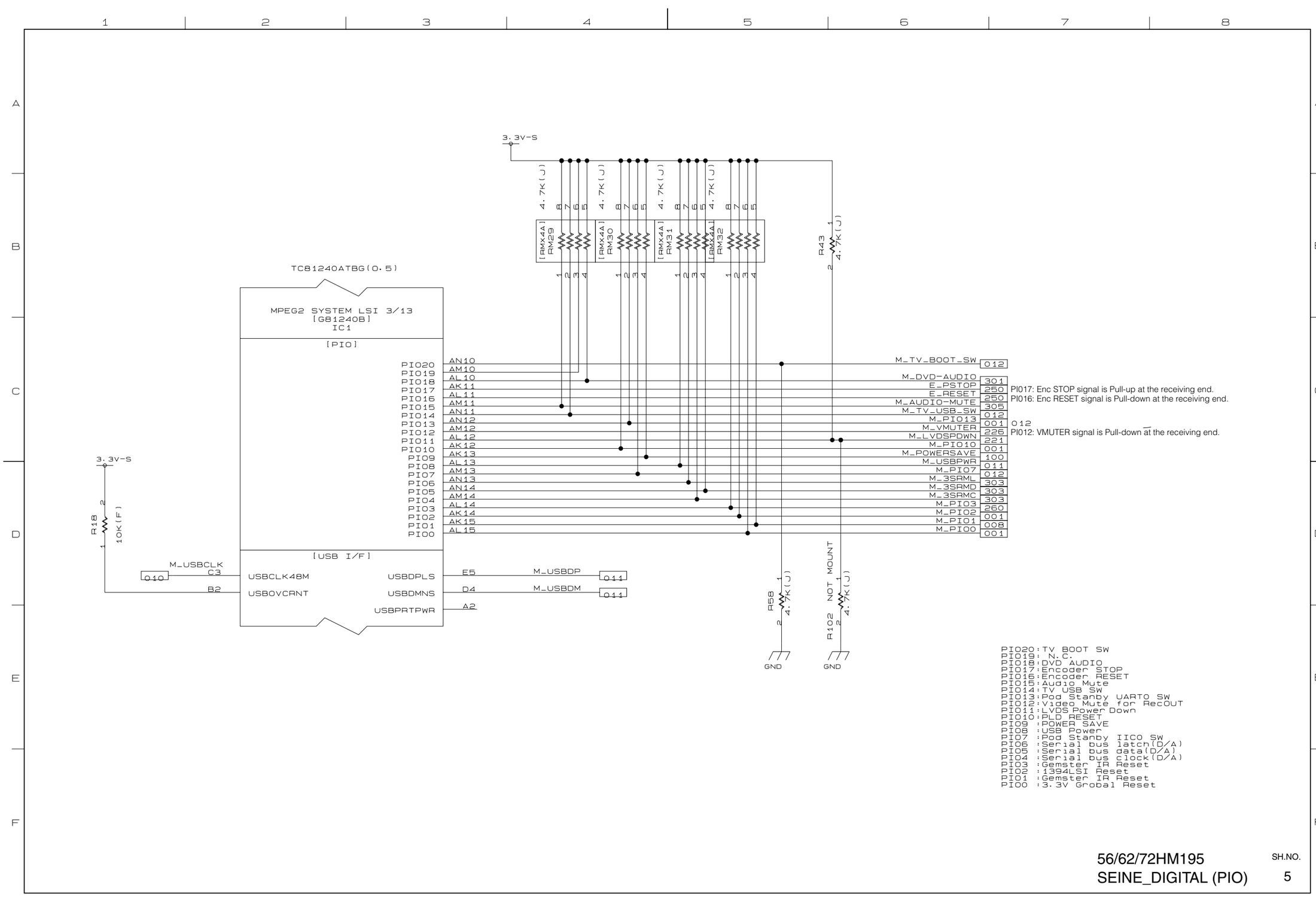
56/62/72HM195
SEINE_DIGITAL (SLOW_BUS_ADDRESS_REGISTER)

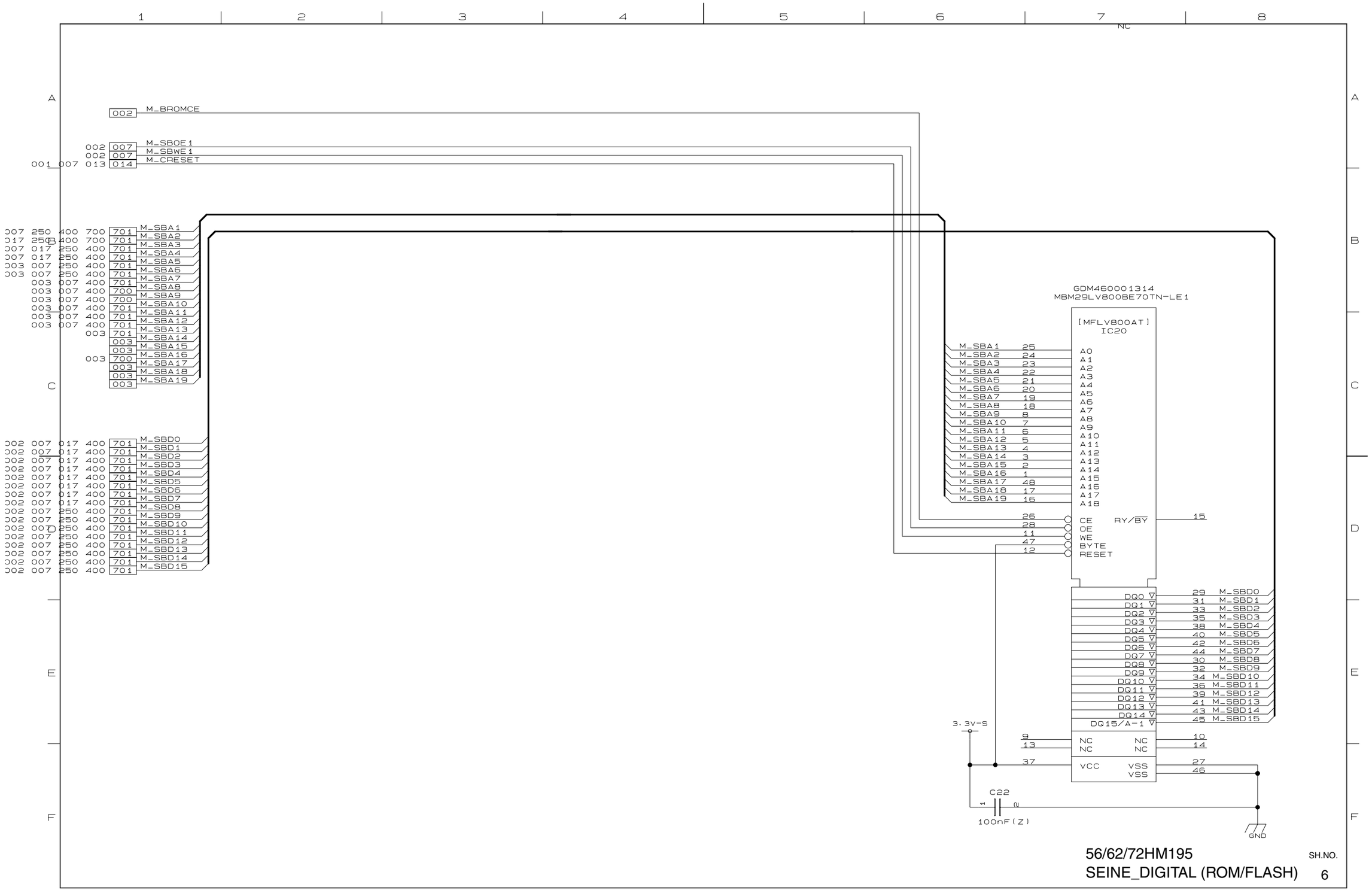
SH.NO. 3

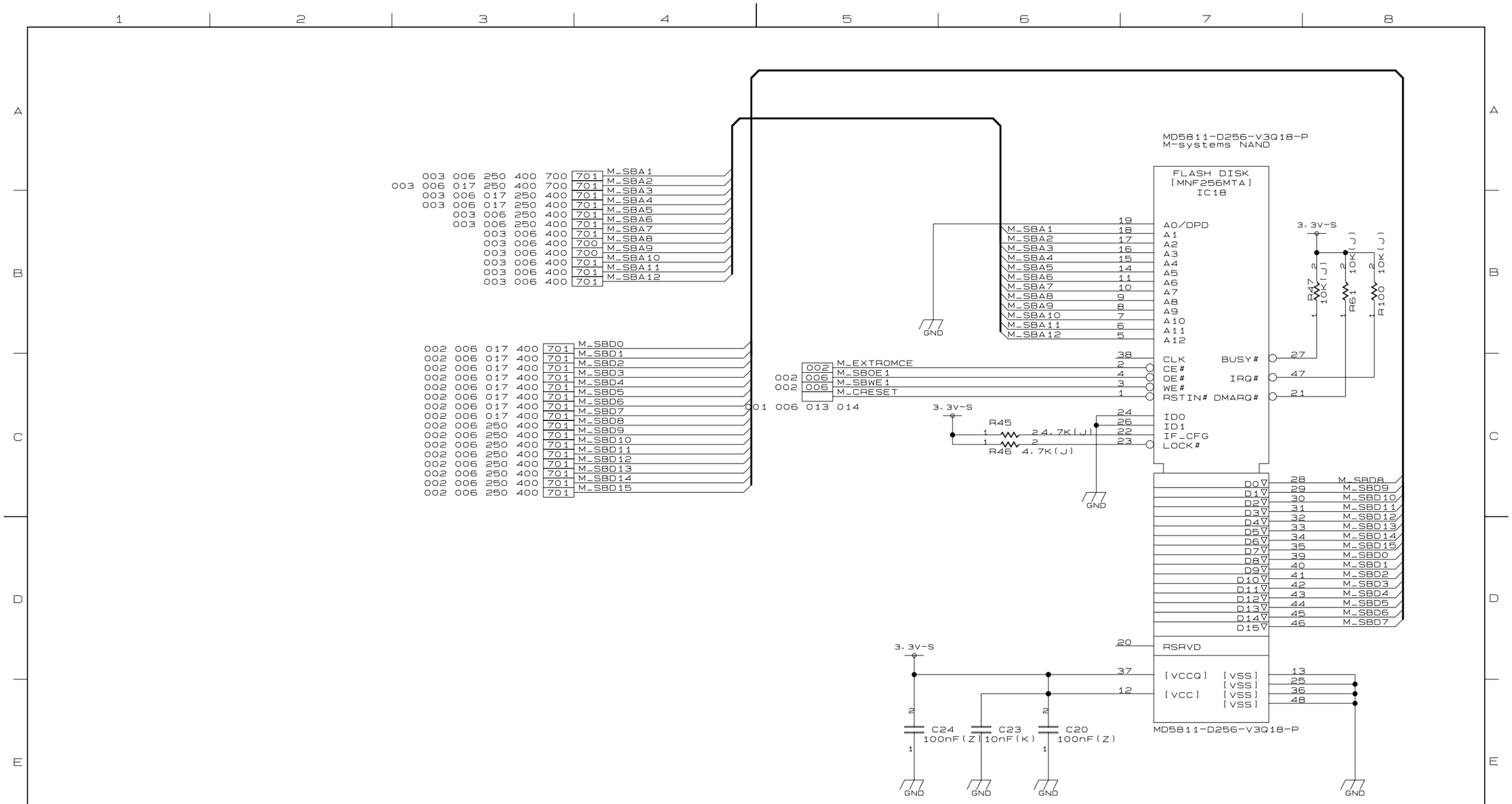


56/62/72HM195
SEINE_DIGITAL (IIC/UART)

SH.NO. 4

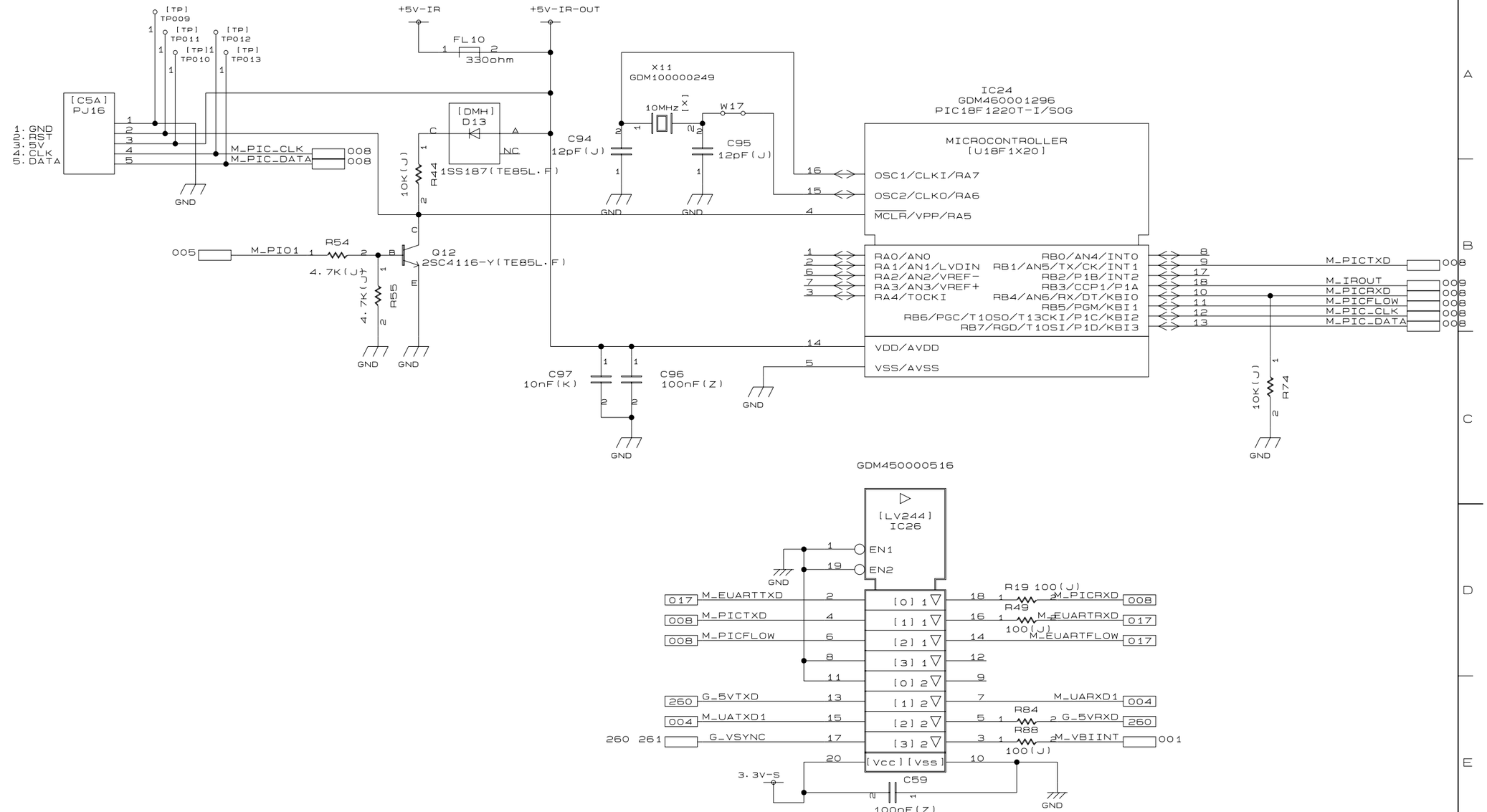

3.3V-S
4.7K(J)
RMX4A1
RM29
RM30
RM31
RM32
R43
TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 3/13
[G81240B]
IC1
[PIO]
PIO20 AN10
PIO19 AM10
PIO18 AL10
PIO17 AK11
PIO16 AL11
PIO15 AM11
PIO14 AN11
PIO13 AN12
PIO12 AM12
PIO11 AL12
PIO10 AK12
PIO09 AK13
PIO08 AL13
PIO07 AM13
PIO06 AN13
PIO05 AN14
PIO04 AM14
PIO03 AL14
PIO02 AK14
PIO01 AK15
PIO00 AL15
M_TV_BOOT_SW 012
M_DVD-AUDIO 301
E_PSTOP 250
E_RESET 250
M_AUDIO-MUTE 305
M_TV_USB_SW 012
M_PIO13 001
M_VMUTER 226
M_LVDSPDWN 221
M_PIO10 001
M_POWERSAVE 100
M_USBPWR 011
M_PIO7 012
M_3SRML 303
M_3SRMD 303
M_3SRMC 303
M_PIO3 260
M_PIO2 001
M_PIO1 008
M_PIO0 001
PI017: Enc STOP signal is Pull-up at the receiving end.
PI016: Enc RESET signal is Pull-down at the receiving end.
012
PI012: VMUTER signal is Pull-down at the receiving end.
3.3V-S
R18
10K(F)
[USB I/F]
M_USBCLK
C3
010
USBCLK48M
B2
USB0VCRNT
USBPRTPWR
E5
M_USBDP
011
D4
M_USBDM
011
A2
R58
4.7K(J)
R102
NOT MOUNT
4.7K(J)
GND
GND
PIO20:TV BOOT SW
PIO19: N.C.
PIO18:DVD AUDIO
PIO17:Encoder STOP
PIO16:Encoder RESET
PIO15:Audio Mute
PIO14:TV USB SW
PIO13:Pod Stanby UARTO SW
PIO12:Video Mute for RecOUT
PIO11:LVDS Power Down
PIO10:PLD RESET
PIO09 :POWER SAVE
PIO08 :USB Power
PIO07 :Pod Stanby IICO SW
PIO06 :Serial bus latch(D/A)
PIO05 :Serial bus data(D/A)
PIO04 :Serial bus clock(D/A)
PIO03 :Gemster IR Reset
PIO02 :1394LSI Reset
PIO01 :Gemster IR Reset
PIO00 :3.3V Grobal Reset
56/62/72HM195
SEINE_DIGITAL (PIO)
SH.NO.
5


NC
002 M_BROMCE
002 007 M_SBOE1
002 007 M_SBWE1
001 007 013 014 M_CRESET
007 250 400 700 701 M_SBA1
017 250 400 700 701 M_SBA2
007 017 250 400 701 M_SBA3
007 017 250 400 701 M_SBA4
007 017 250 400 701 M_SBA5
003 007 250 400 701 M_SBA6
003 007 250 400 701 M_SBA7
003 007 400 701 M_SBA8
003 007 400 700 M_SBA9
003 007 400 700 M_SBA10
003 007 400 701 M_SBA11
003 007 400 701 M_SBA12
003 007 400 701 M_SBA13
003 701 M_SBA14
003 M_SBA15
003 M_SBA16
003 700 M_SBA17
003 M_SBA18
003 M_SBA19
002 007 017 400 701 M_SBD0
002 007 017 400 701 M_SBD1
002 007 017 400 701 M_SBD2
002 007 017 400 701 M_SBD3
002 007 017 400 701 M_SBD4
002 007 017 400 701 M_SBD5
002 007 017 400 701 M_SBD6
002 007 017 400 701 M_SBD7
002 007 017 400 701 M_SBD8
002 007 250 400 701 M_SBD9
002 007 250 400 701 M_SBD10
002 007 250 400 701 M_SBD11
002 007 250 400 701 M_SBD12
002 007 250 400 701 M_SBD13
002 007 250 400 701 M_SBD14
002 007 250 400 701 M_SBD15
GDM460001314
MBM29LV800BE70TN-LE1
[MFLV800AT]
IC20
M_SBA1 25 A0
M_SBA2 24 A1
M_SBA3 23 A2
M_SBA4 22 A3
M_SBA5 21 A4
M_SBA6 20 A5
M_SBA7 19 A6
M_SBA8 18 A7
M_SBA9 8 A8
M_SBA10 7 A9
M_SBA11 6 A10
M_SBA12 5 A11
M_SBA13 4 A12
M_SBA14 3 A13
M_SBA15 2 A14
M_SBA16 1 A15
M_SBA17 48 A16
M_SBA18 17 A17
M_SBA19 16 A18
26 CE
28 OE
11 WE
47 BYTE
12 RESET
RY/BY 15
DQ0 29 M_SBD0
DQ1 31 M_SBD1
DQ2 33 M_SBD2
DQ3 35 M_SBD3
DQ4 38 M_SBD4
DQ5 40 M_SBD5
DQ6 42 M_SBD6
DQ7 44 M_SBD7
DQ8 30 M_SBD8
DQ9 32 M_SBD9
DQ10 34 M_SBD10
DQ11 36 M_SBD11
DQ12 39 M_SBD12
DQ13 41 M_SBD13
DQ14 43 M_SBD14
DQ15/A-1 45 M_SBD15
3.3V-S
9 NC
13 NC
NC 10
NC 14
37 VCC
VSS 27
VSS 46
C22
1
2
100nF(Z)
GND
56/62/72HM195
SEINE_DIGITAL (ROM/FLASH)
SH.NO.
6



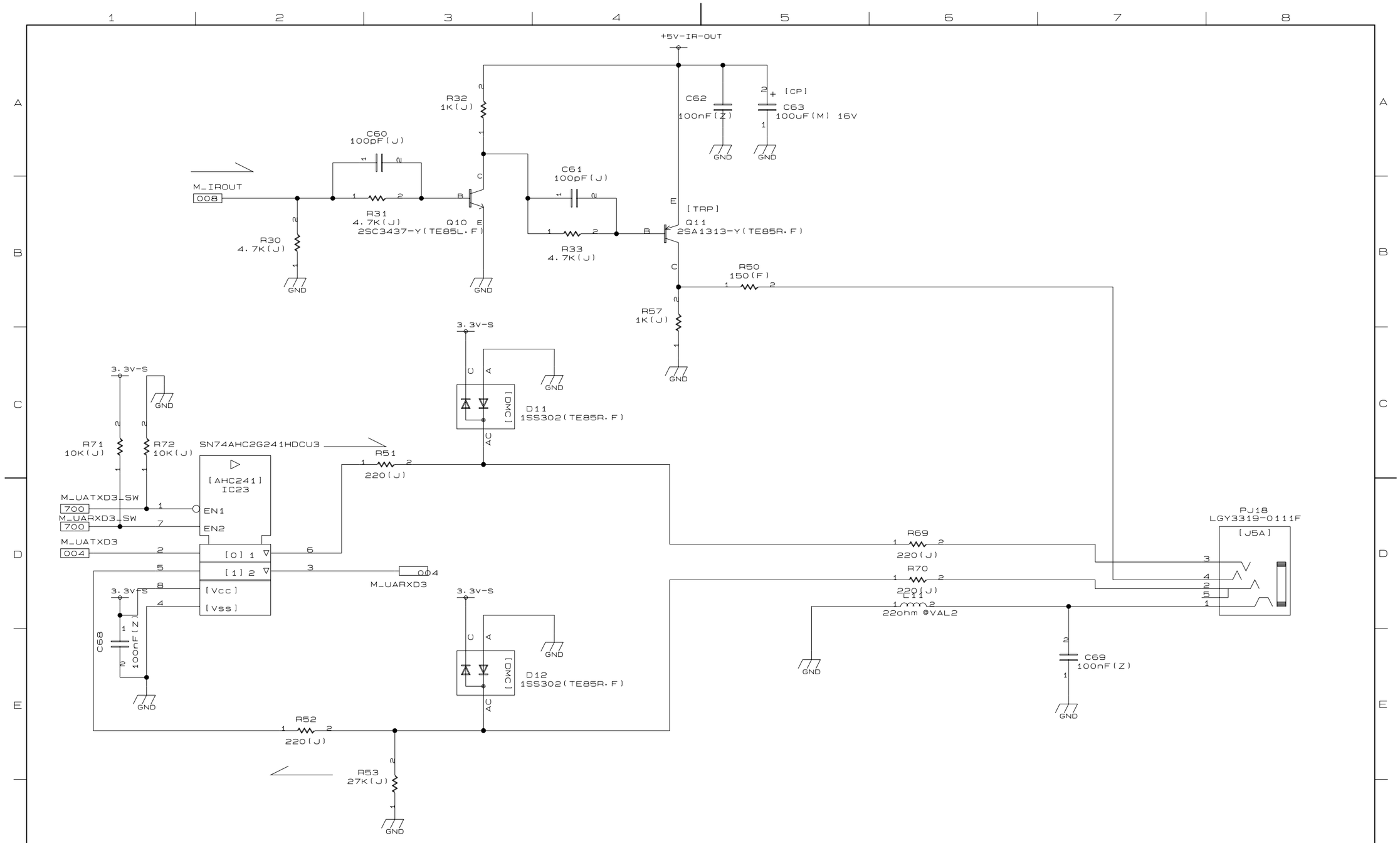
56/62/72HM195
SEINE_DIGITAL (M-SYSTEM_NAND_FLASHROM)

SH.NO. 7



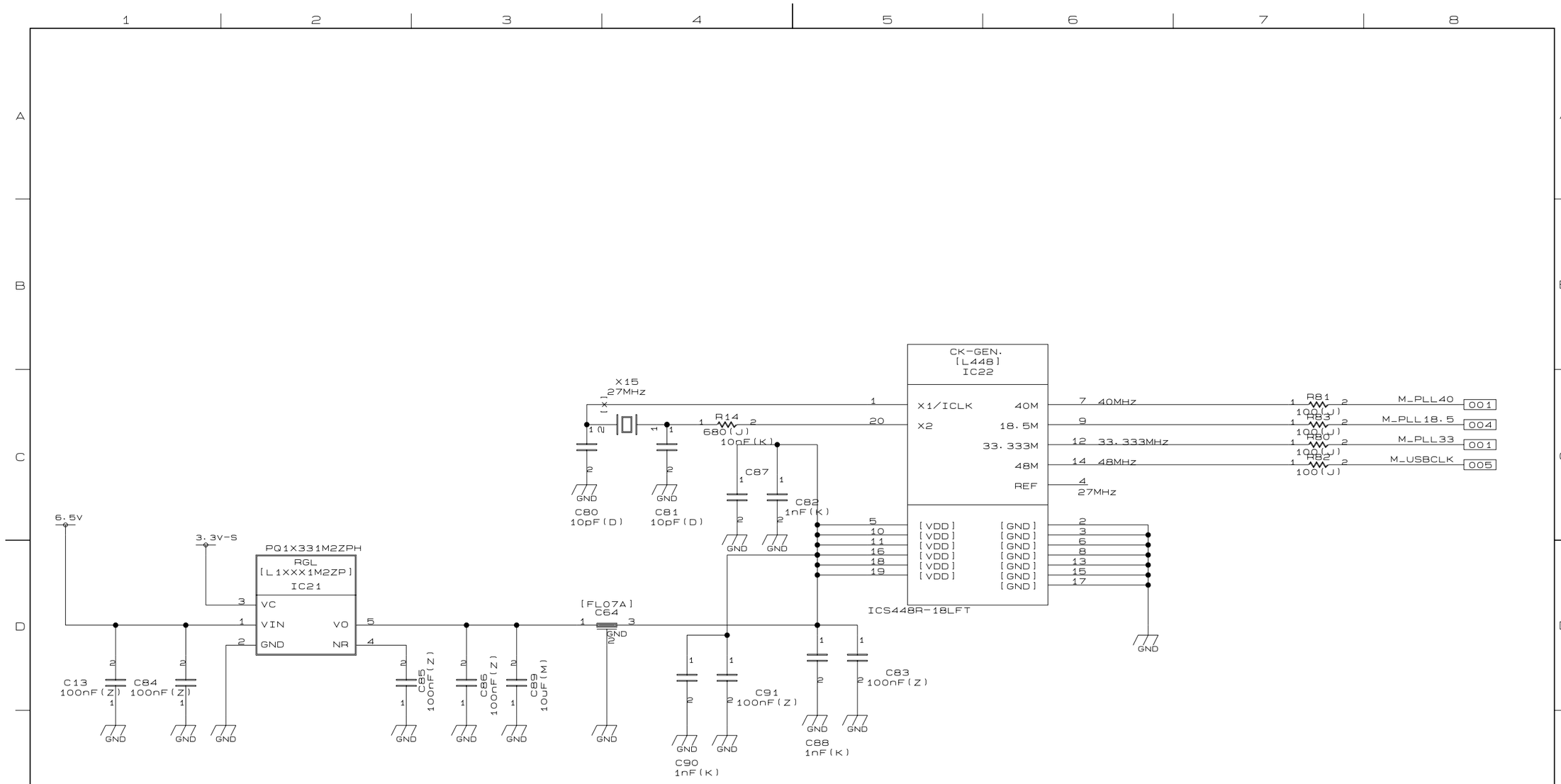
56/62/72HM195
SEINE_DIGITAL (IR)

SH.NO.
8



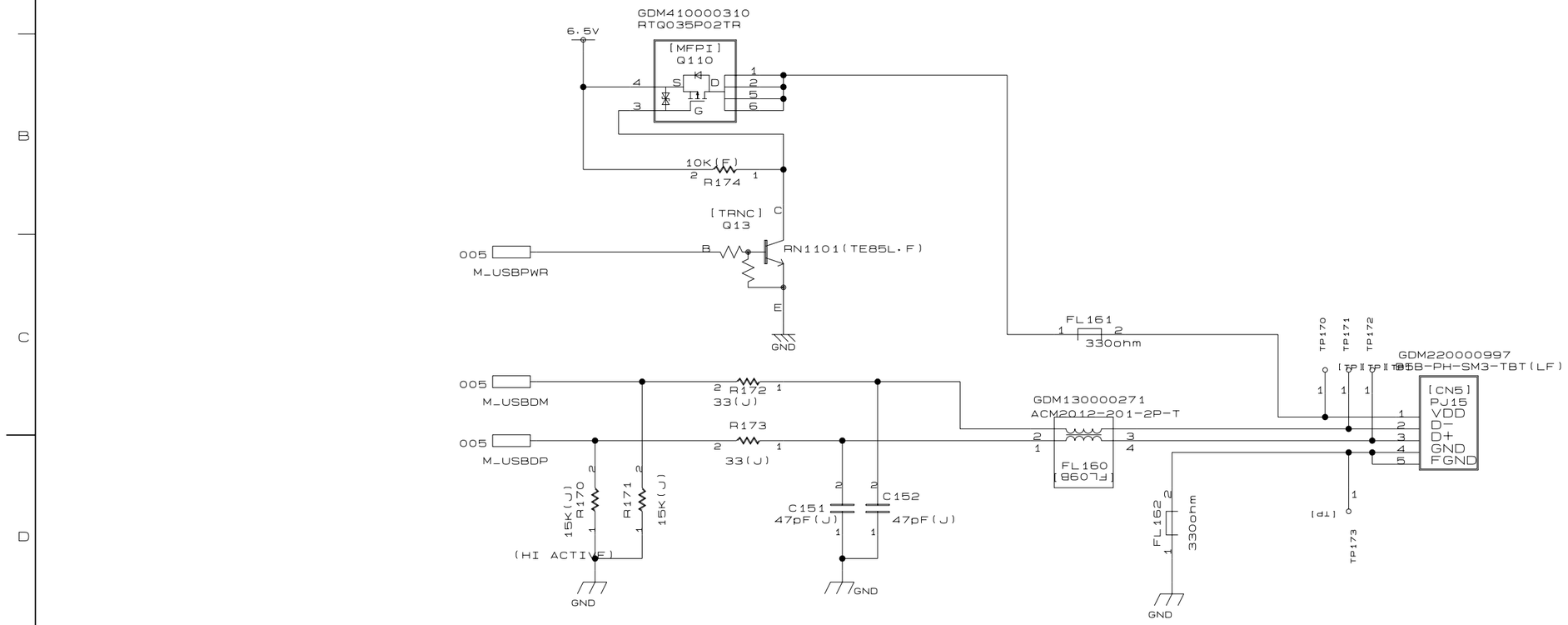
56/62/72HM195
SEINE_DIGITAL (GLINK_IR-OUT)

SH.NO. 9



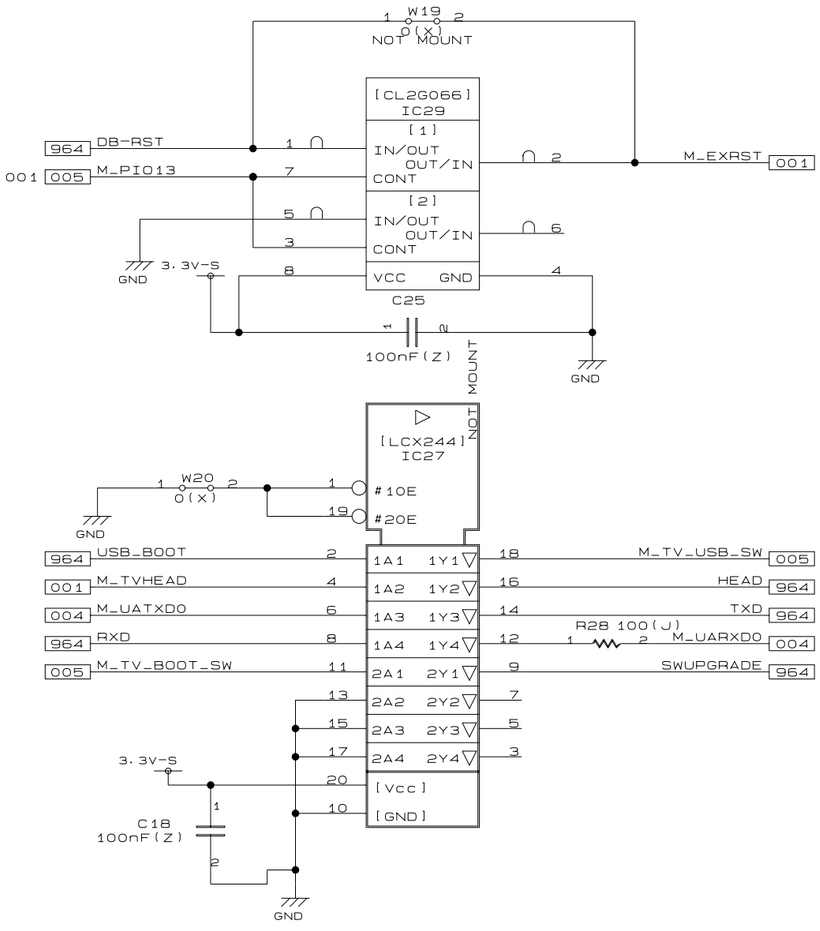
56/62/72HM195
SEINE_DIGITAL (CLOCK_GENERATOR)

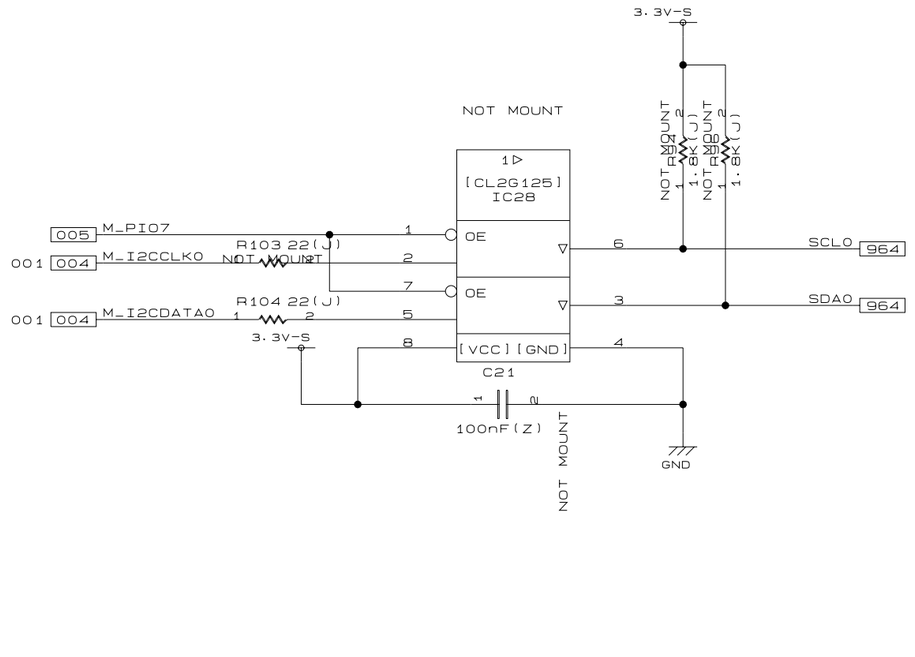
SH.NO.
10



56/62/72HM195
SEINE_DIGITAL (USB_I/F)

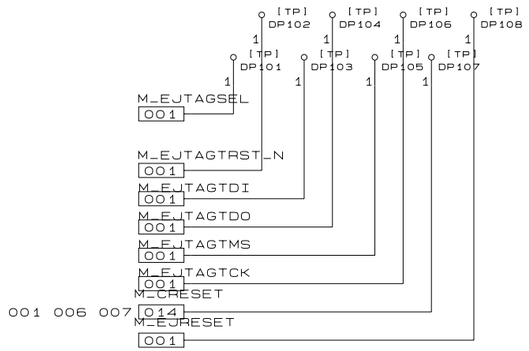
SH.NO. 11





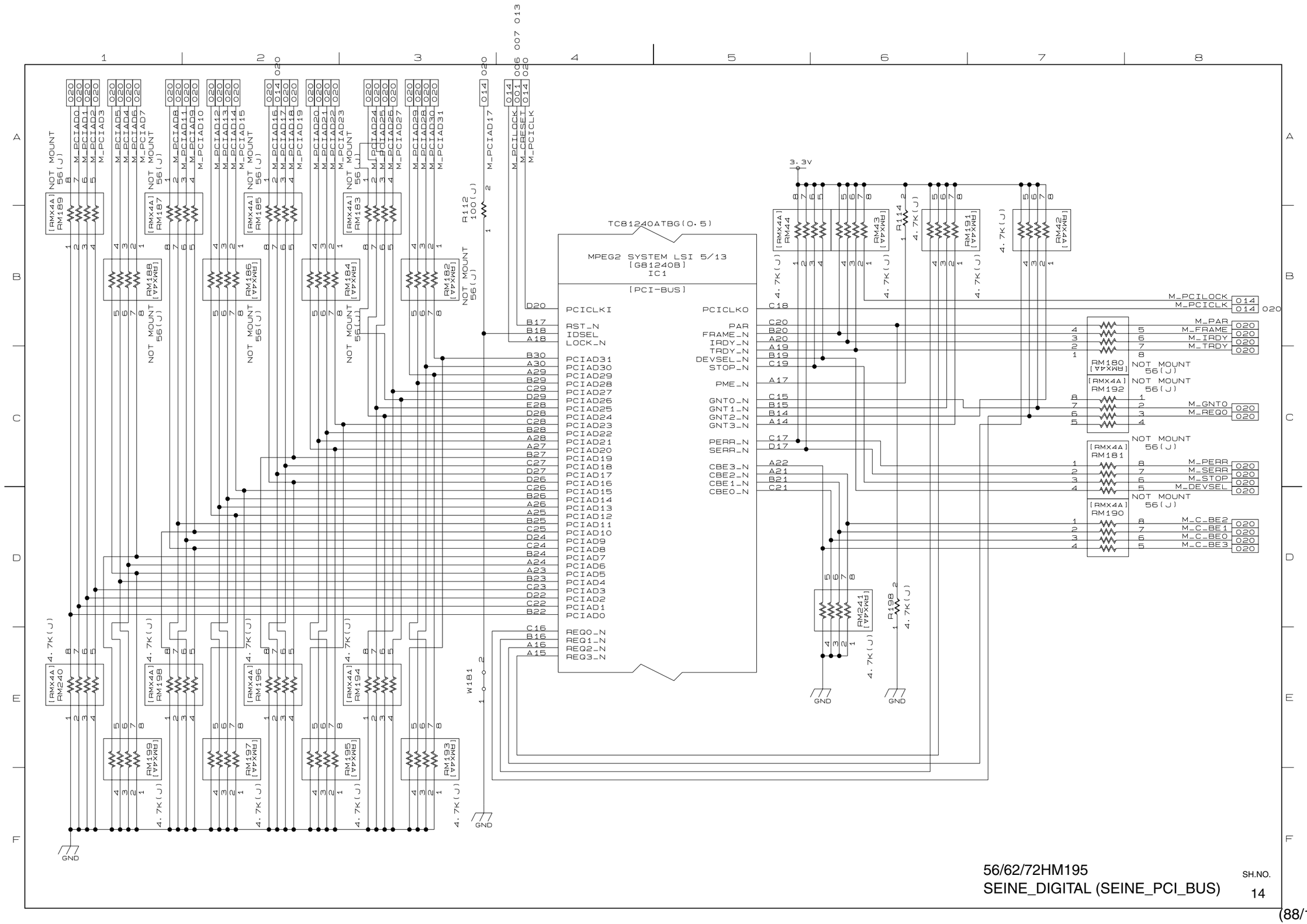
56/62/72HM195
SEINE_DIGITAL (UARTO_INTERFACE)

SH.NO. 12



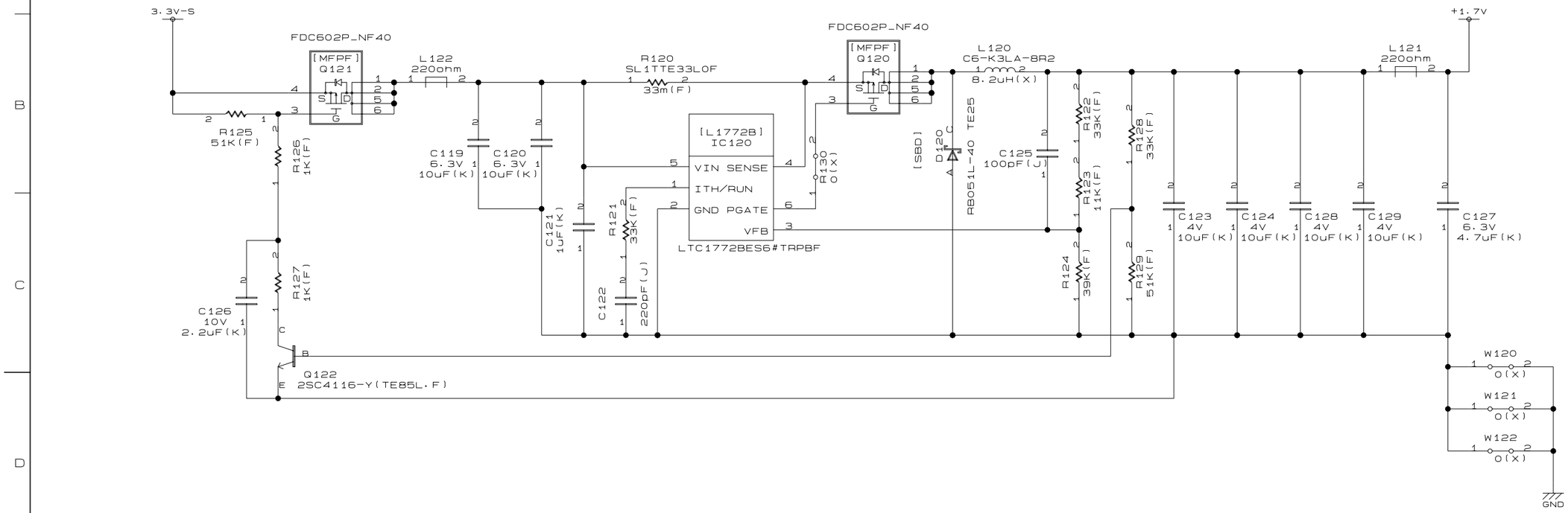
56/62/72HM195
SEINE_DIGITAL (EJTAG_CONNECTOR)

SH.NO. 13



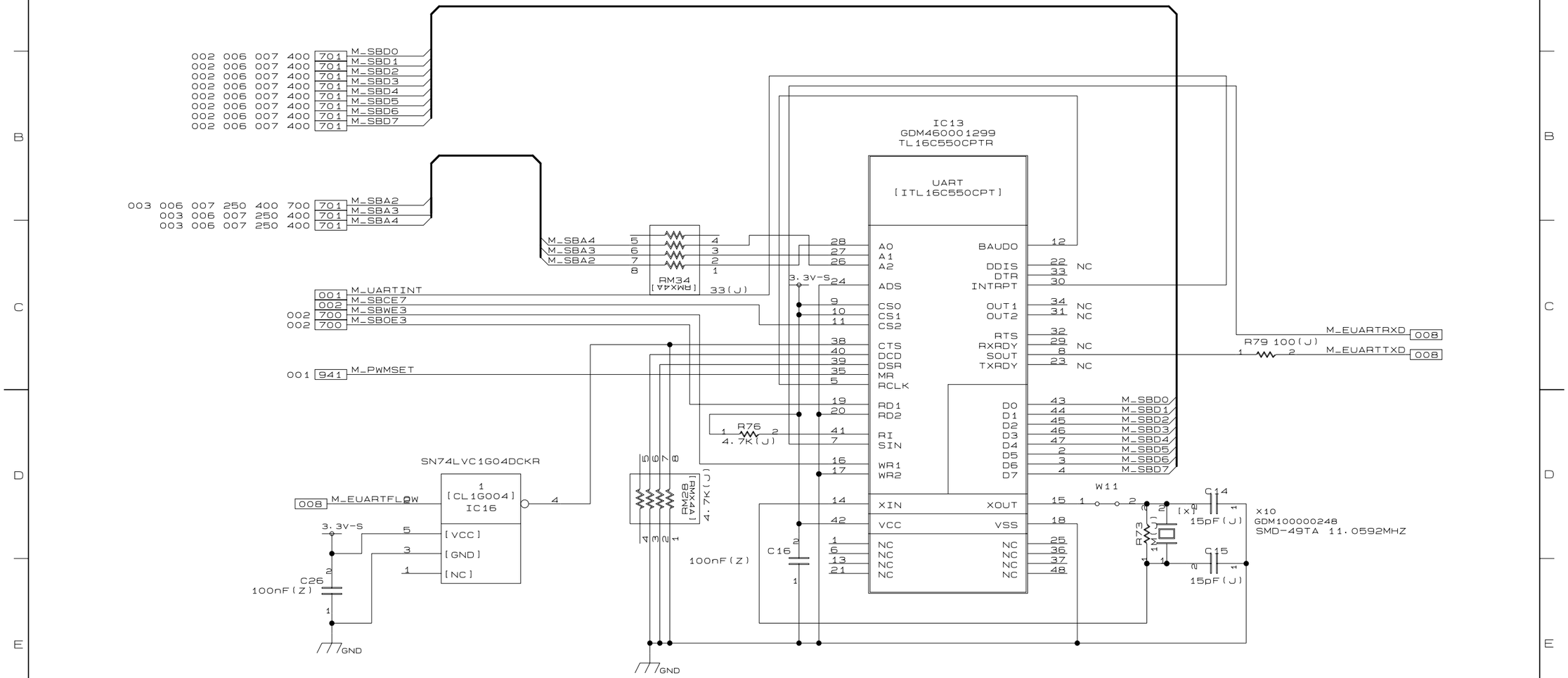
56/62/72HM195
SEINE_DIGITAL (SEINE_PCI_BUS)

SH.NO.
14



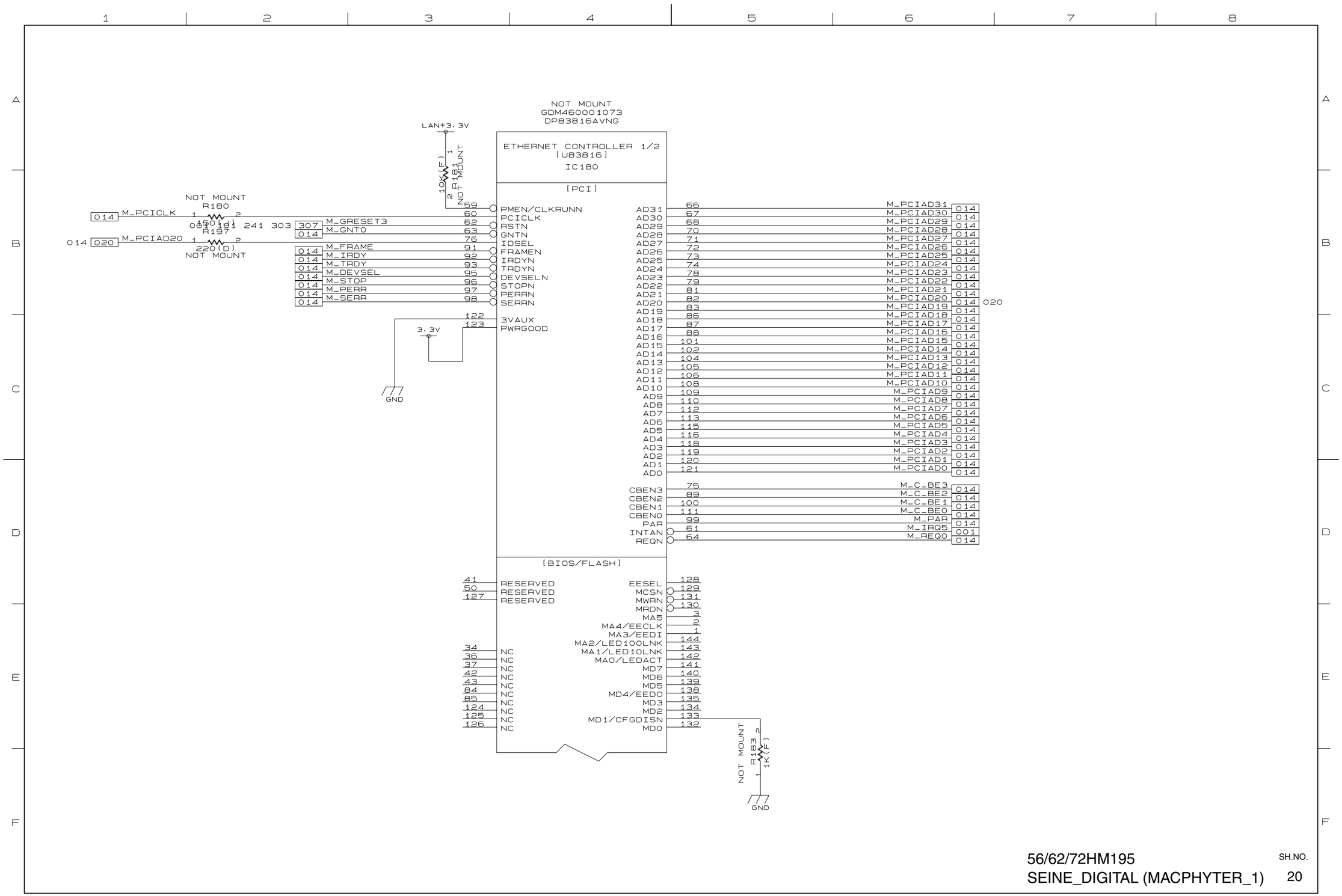
56/62/72HM195
SEINE_DIGITAL (MPU_POWER)

SH.NO.
16



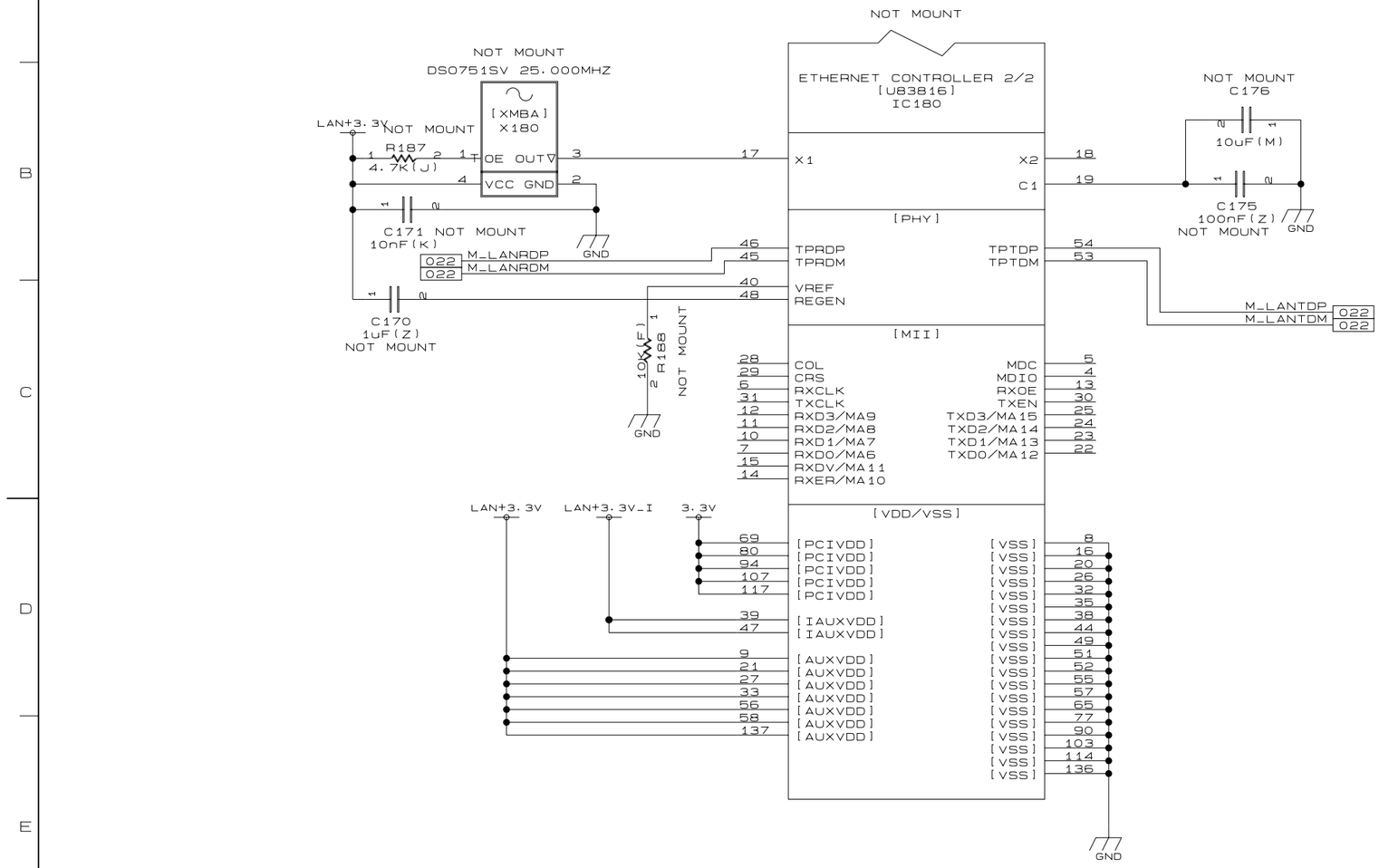
56/62/72HM195
SEINE_DIGITAL (Ext_UART)

SH.NO. 17



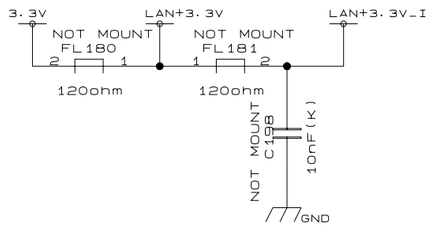
56/62/72HM195
SEINE_DIGITAL (MACPHYTER_1)

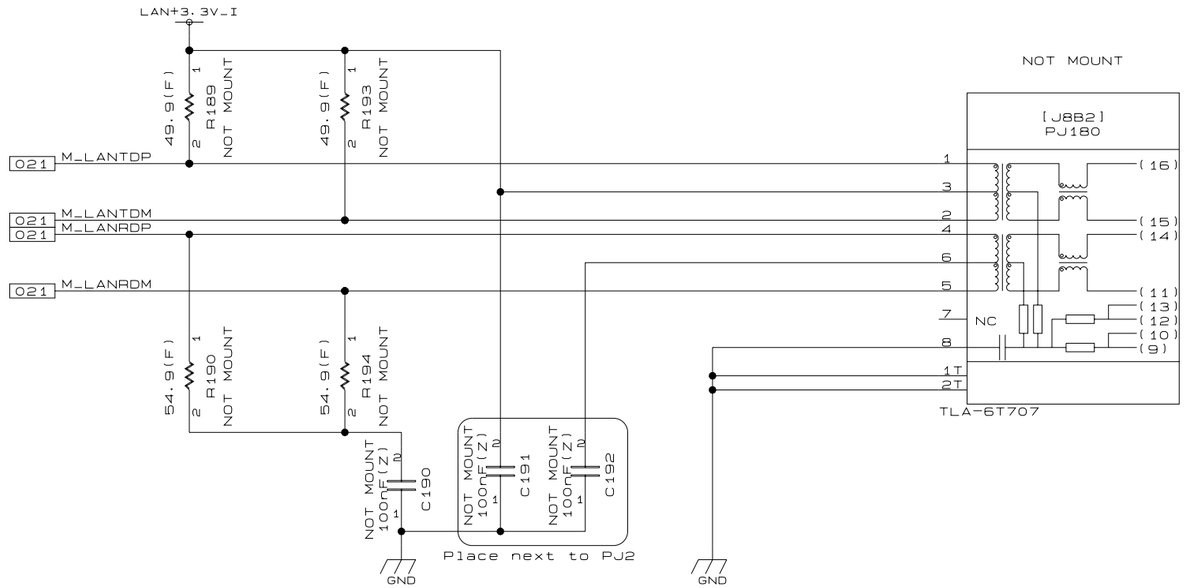
SH.NO. 20



56/62/72HM195
SEINE_DIGITAL (MACPHYTER_1)

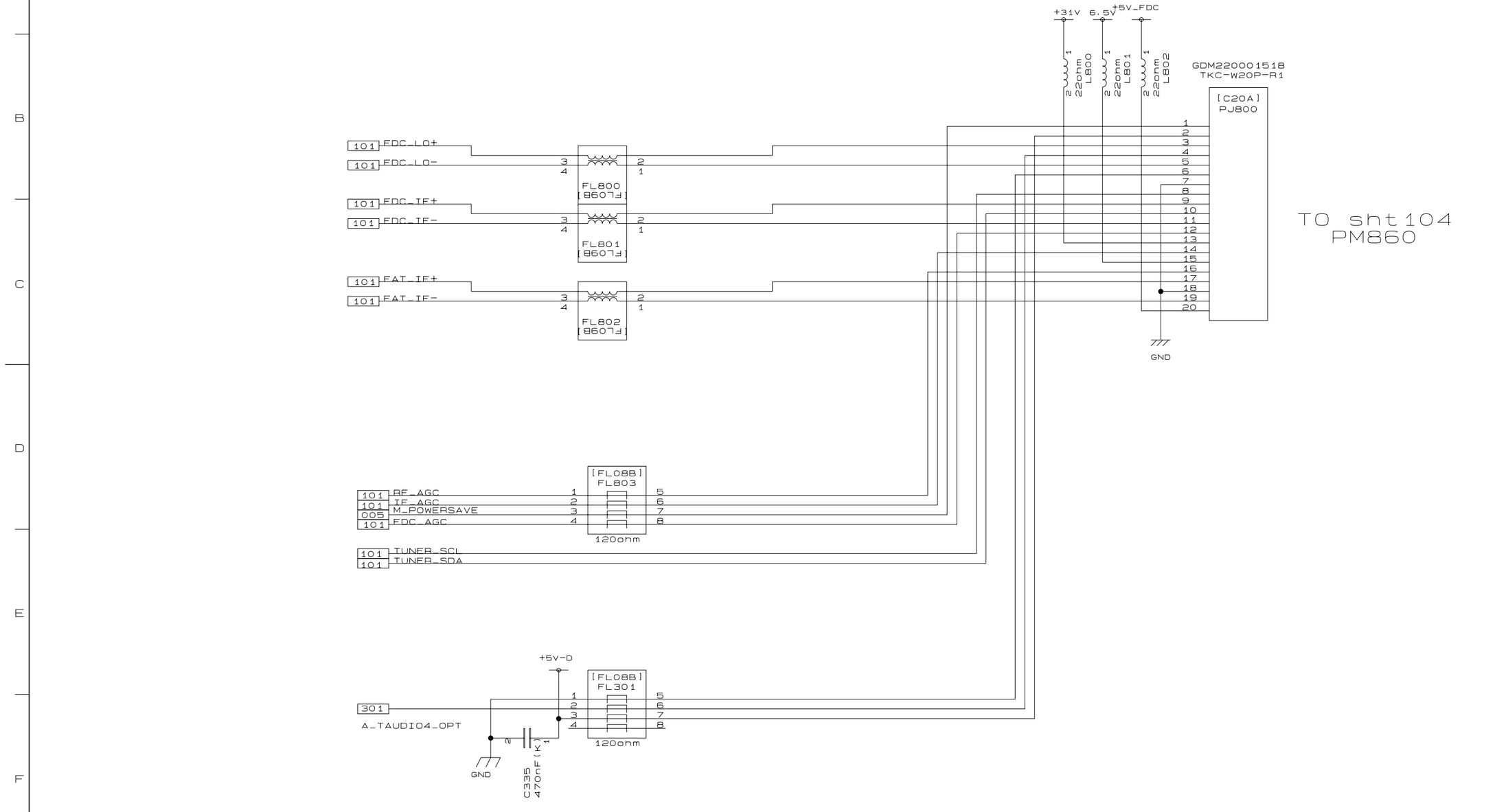
SH.NO.
21





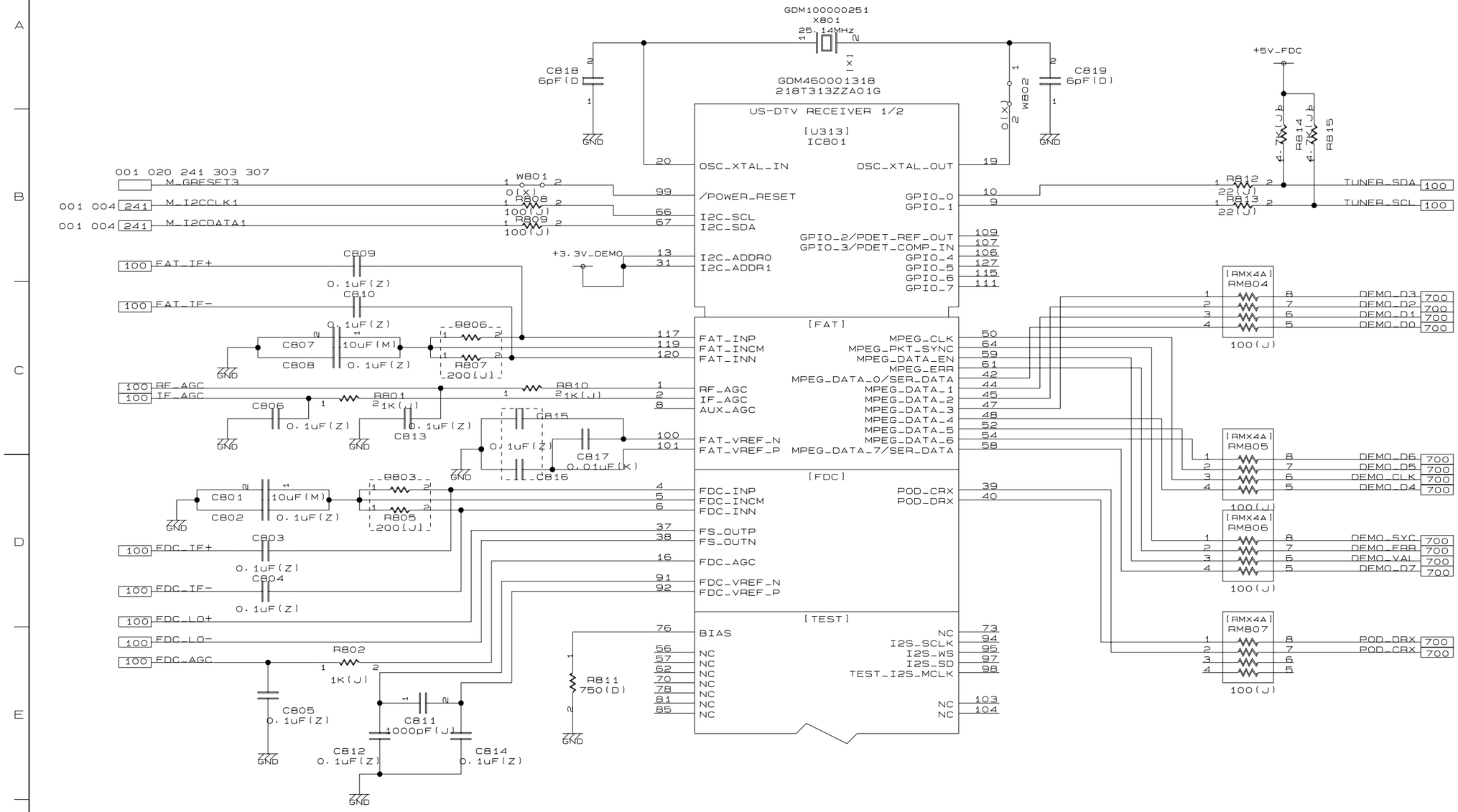
56/62/72HM195
SEINE_DIGITAL (RJ45)

SH.NO. 22



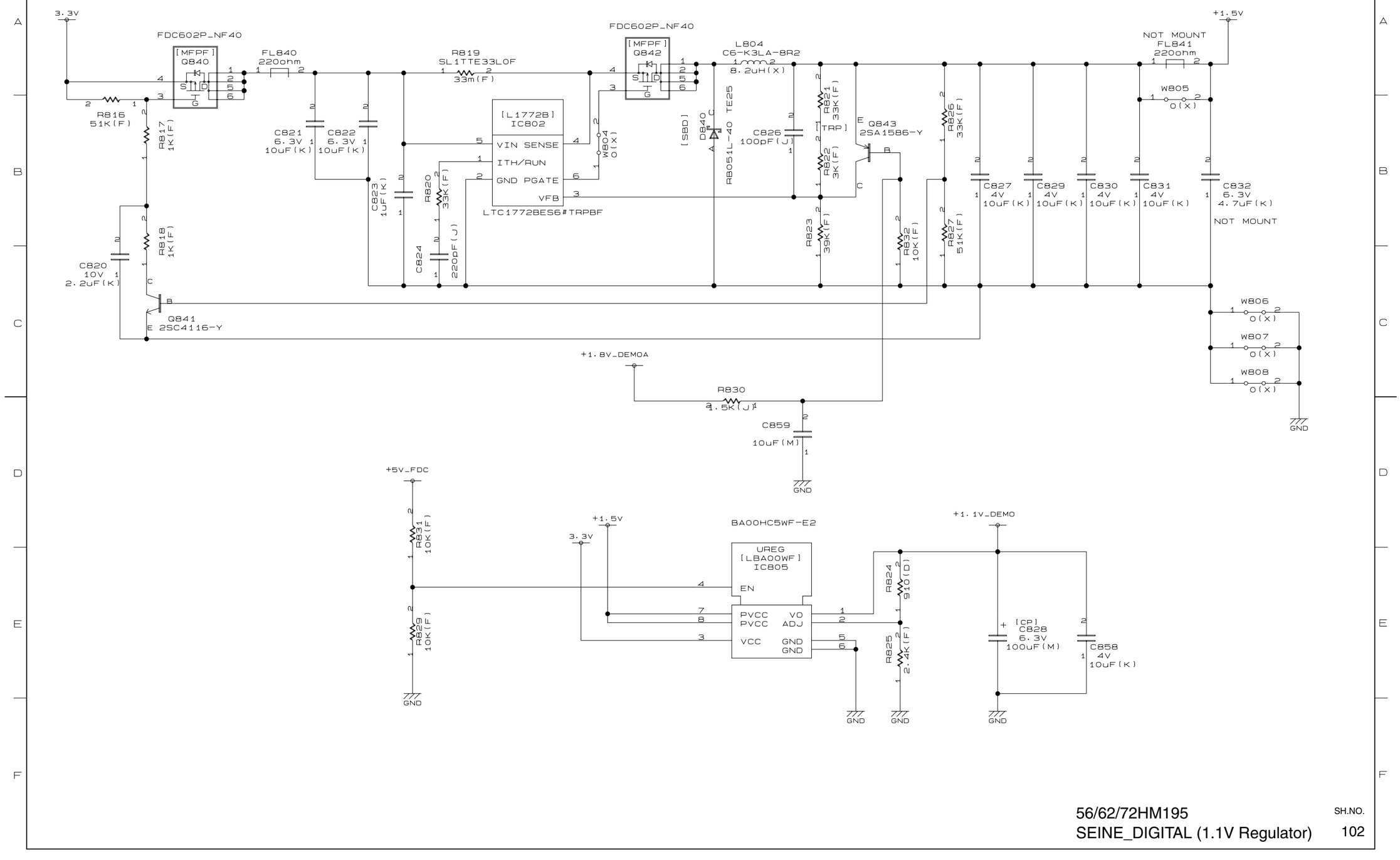
56/62/72HM195
SEINE_DIGITAL (TUNER_CONNECTOR)

SH.NO.
100



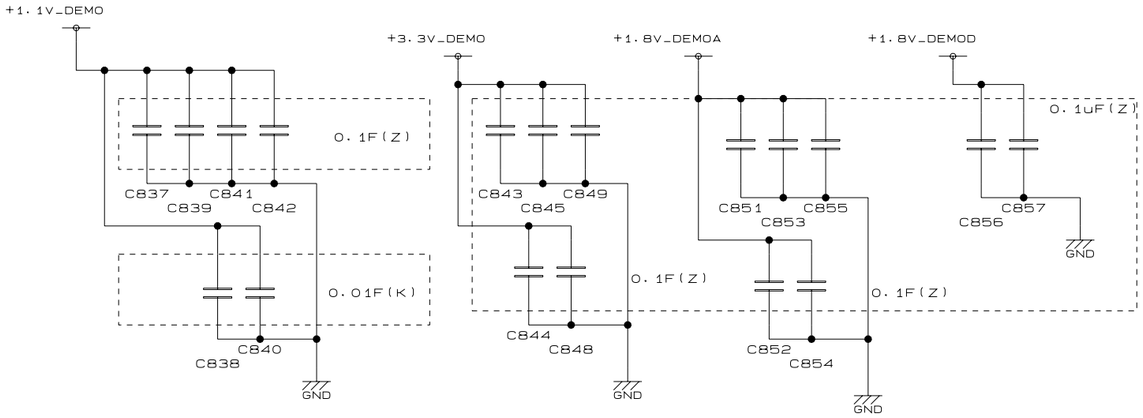
56/62/72HM195
SEINE_DIGITAL (T313 (Signal))

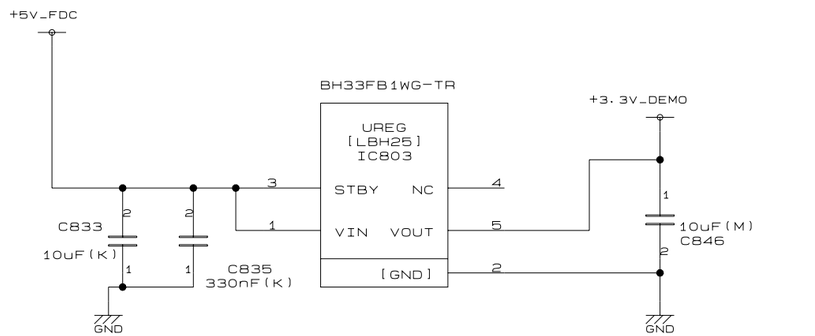
SH.NO.
101

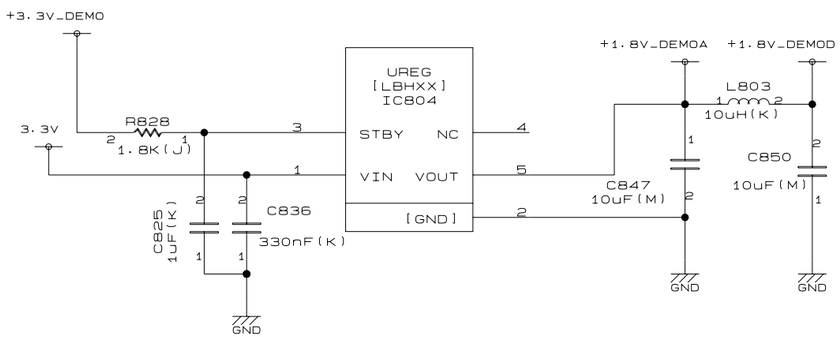


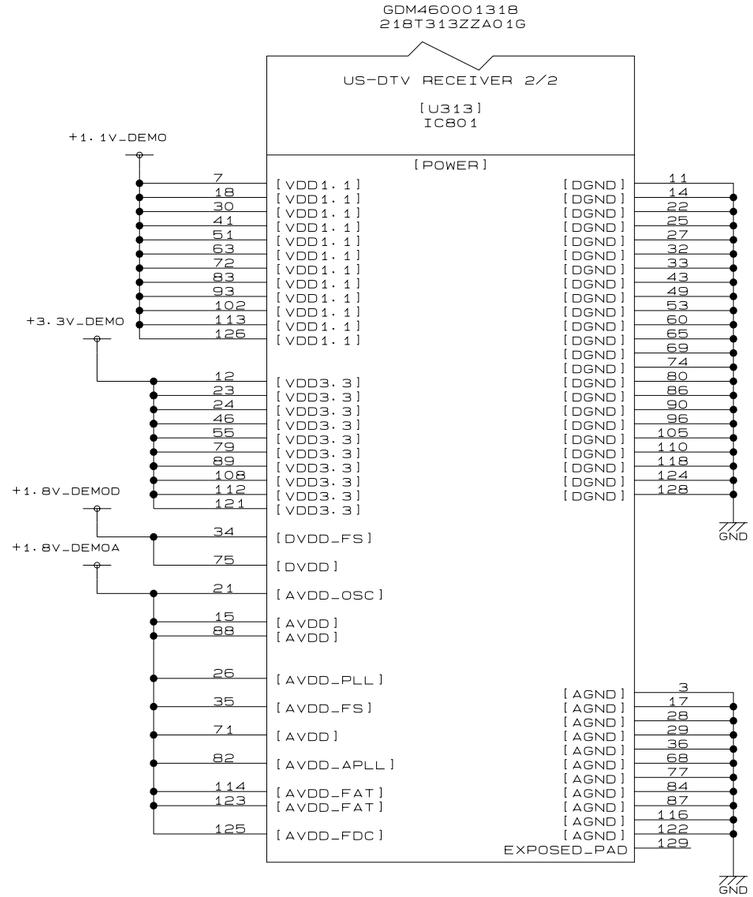
56/62/72HM195
SEINE_DIGITAL (1.1V Regulator)

SH.NO.
102



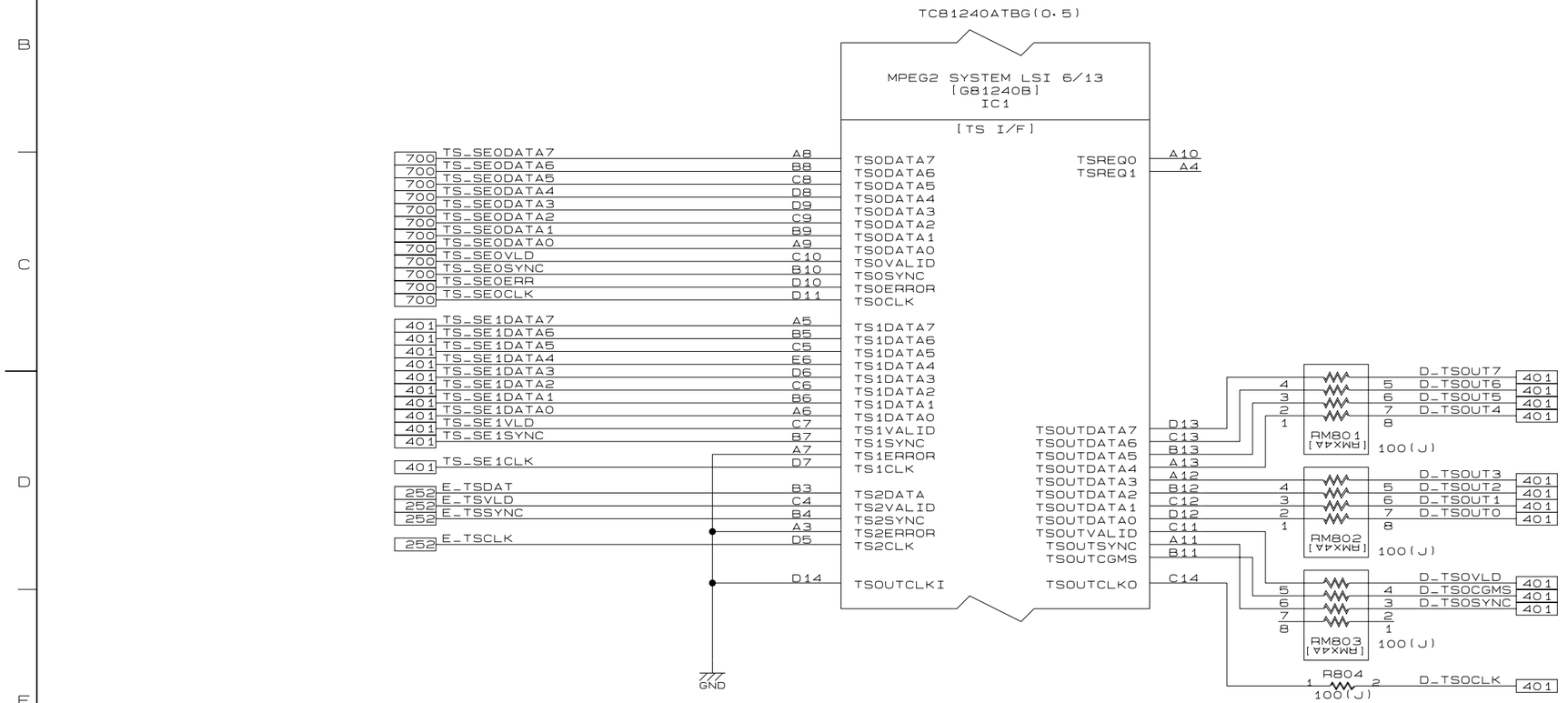






56/62/72HM195
SEINE_DIGITAL (T313 (POWER))

SH.NO. 103

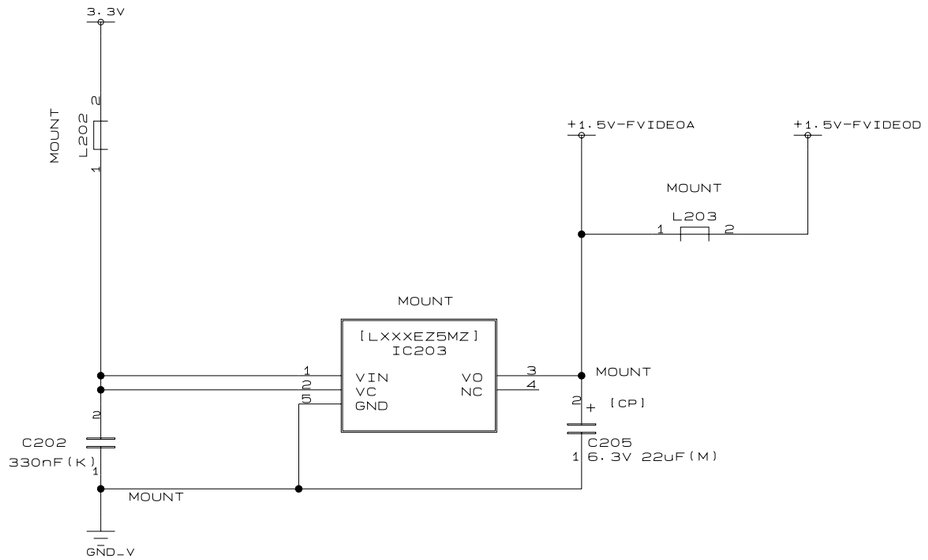


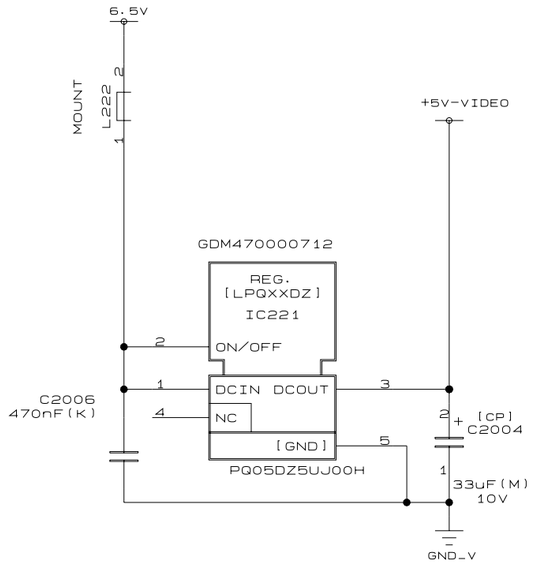
56/62/72HM195
SEINE_DIGITAL (SEINE_TS_I/F)

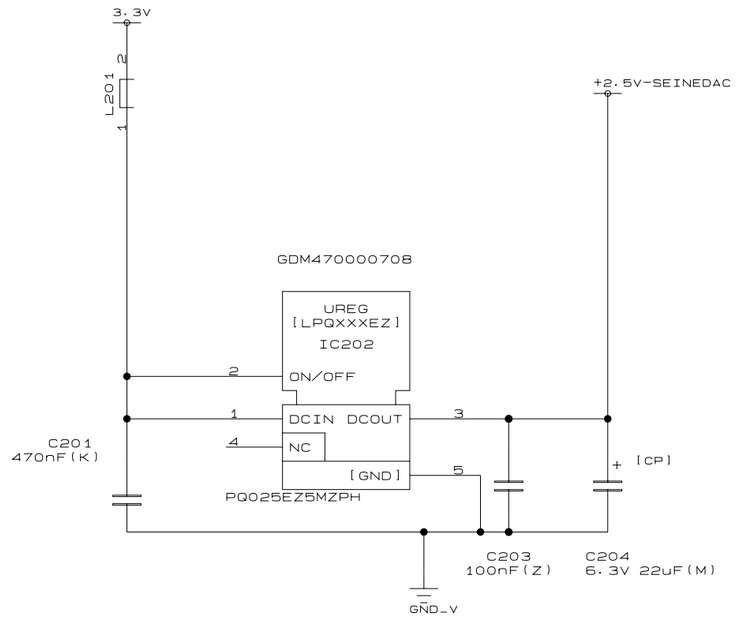
SH.NO. 150

56/62/72HM195
SEINE_DIGITAL (SEINE_CAPTURE_IN)

SH.NO.
200

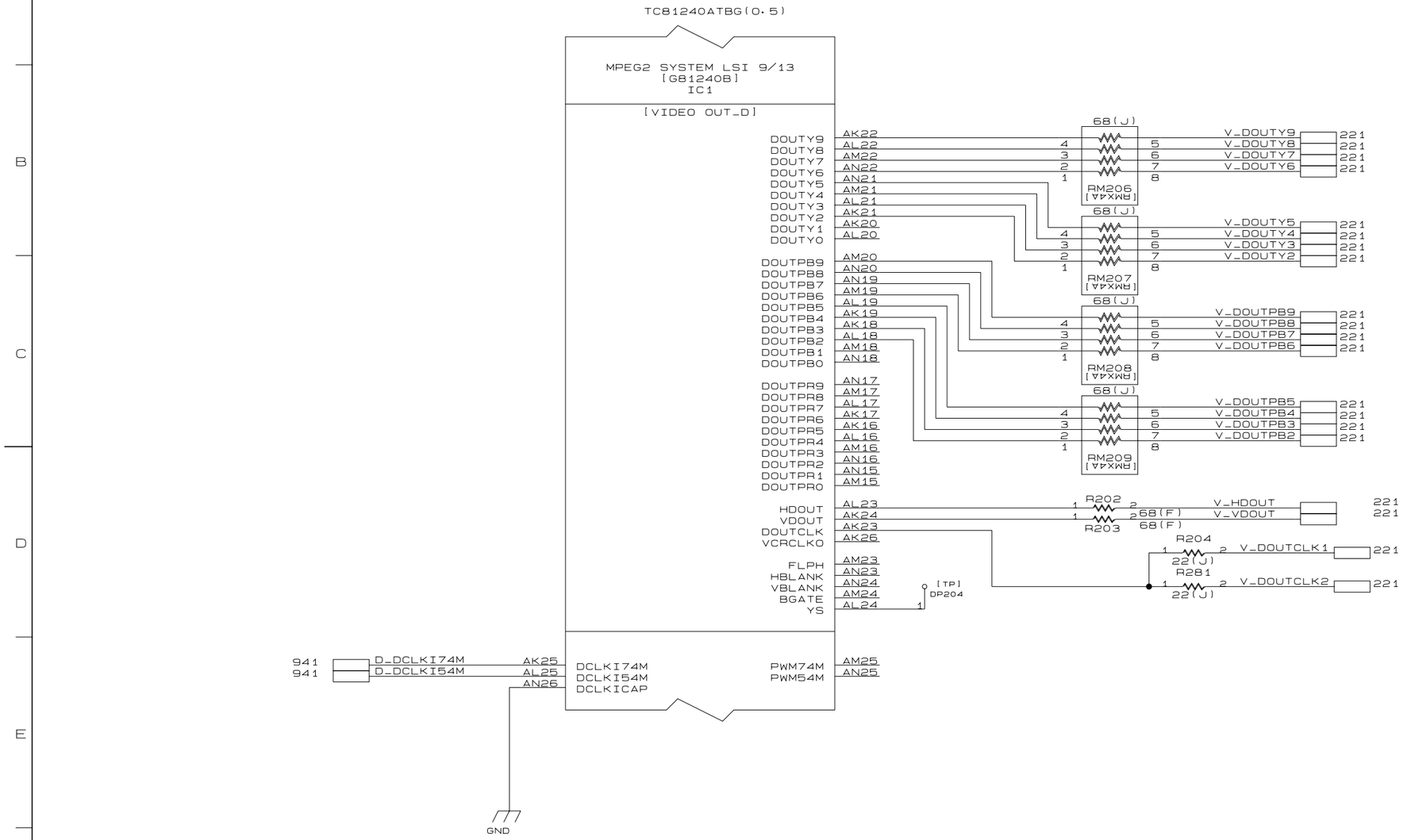






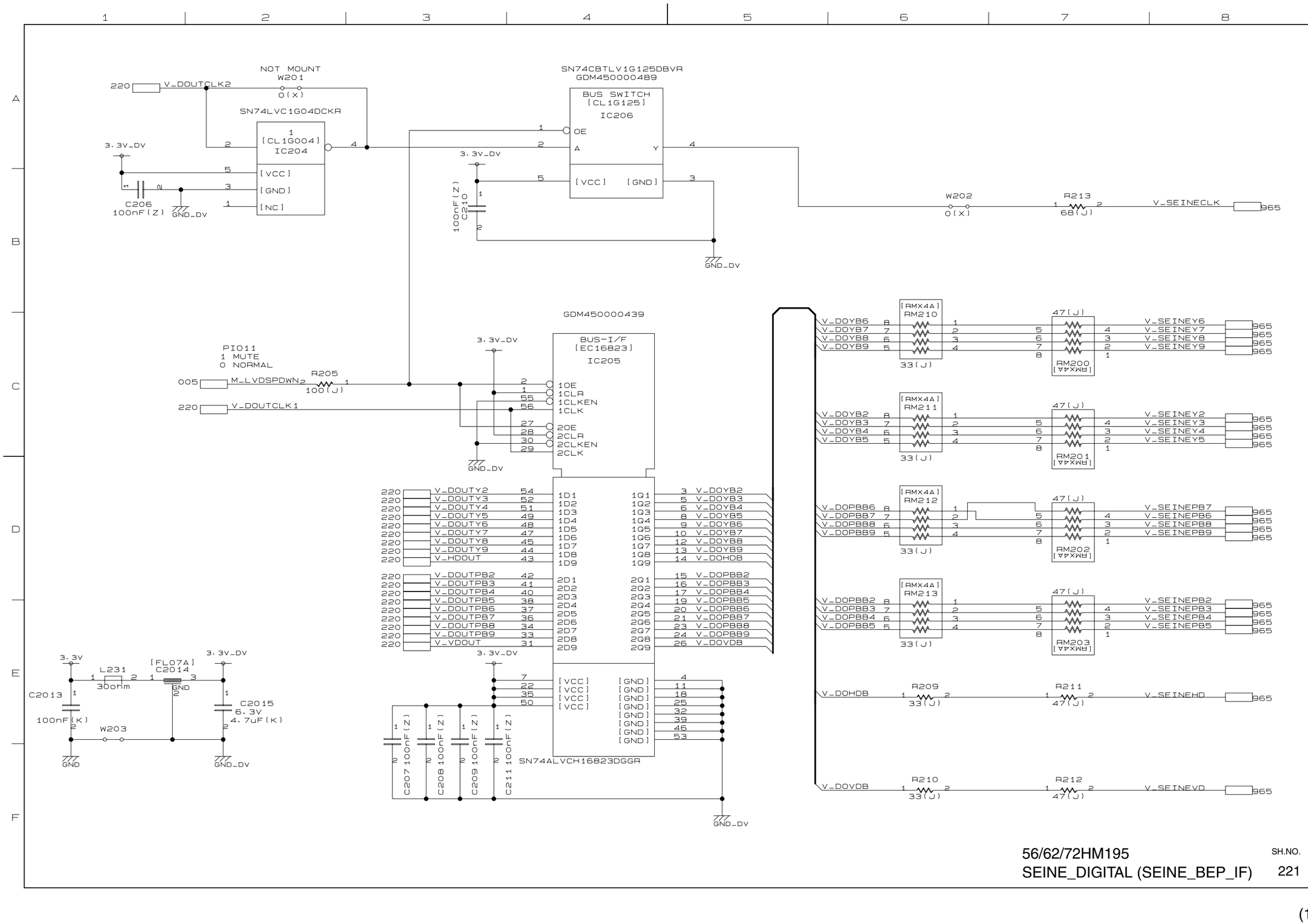
56/62/72HM195
SEINE_DIGITAL (VIDEO_POWER)

SH.NO.
210



56/62/72HM195
SEINE_DIGITAL (SEINE_DIGITAL_OUT)

SH.NO.
220



56/62/72HM195
SEINE_DIGITAL (SEINE_BEP_IF)

SH.NO. 221

TC81240ATBG(0.5)

MPEG2 SYSTEM LSI 10/13
[G81240B]
IC1

[VIDEO OUT_A]

YOUT AE31
PBOUT AF31
PROUT AG31

VCRYOUT AA31
VCRCOUT AB31
VCRCVOUT AC31

YNEG AE32
PBNEG AF32
PRNEG AG32

VCRYNEG AA32
VCRCNEG AB32
VCRCVNEG AC32

HSYNC AL28
VSYNC AM28
FASTBLK AK28
CSYNC1 AN27
CSYNC0 AN28

FSADJ_HD AE33
FSADJ_VCR AA33
VBS_HD AF33
VBS_VCR AB33
VREF_HD AG33
VREF_VCR AC33

AD29 DPVD_HD
AA29 DPVD_VCR
AD30 APVD_HD1
AE30 APVD_HD2
AF30 APVD_HD3
AA30 APVD_VCR1
AB30 APVD_VCR2
AC30 APVD_VCR3

DPVS_HD AE29
DPVS_VCR AB29
APVS_HD AF29
APVS_VCR AC29

+2.5V-SEINEDAC

C227 100nF(Z)
C228 100nF(Z)
C229 100nF(Z)
C231 10nF(K)
C233 10nF(K)
C234 10nF(K)

C235 100nF(Z)
C236 100nF(Z)
C237 100nF(Z)
R218 300(F)
C238 100nF(Z)
R219 300(F)
C239 100nF(Z)
C240 100nF(Z)

V_YOUT 227
V_PBOUT 227
V_PROUT 227
75(F) R223
75(F) R230
75(F) R237

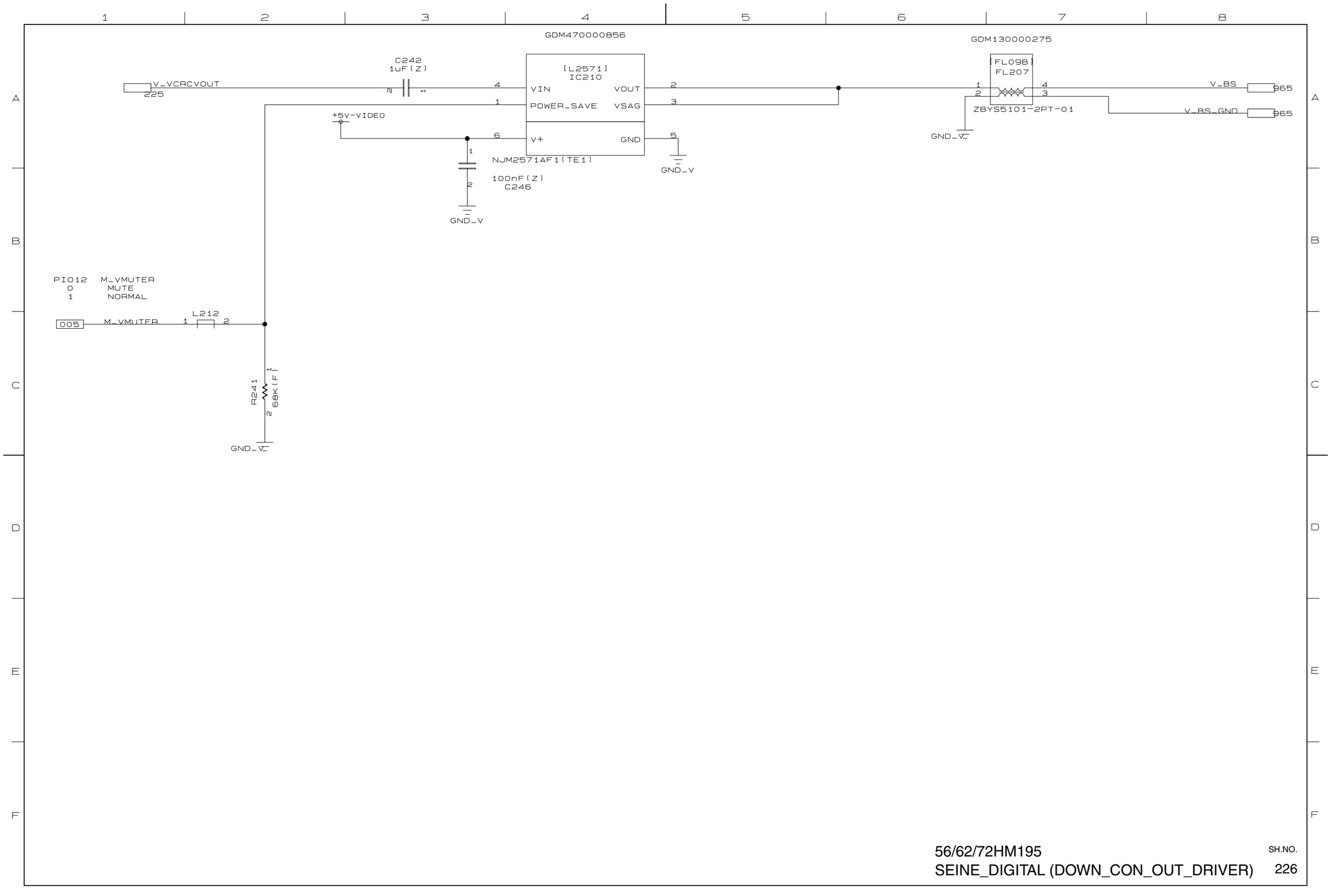
V_VCRCVOUT 226
75(F) R220
68(F) R224
75(F) R227
68(F) R231
75(F) R234
68(F) R238

[RMX4A] RM238
[RMX4A] RM237
[RMX4A] RM236

GND_V

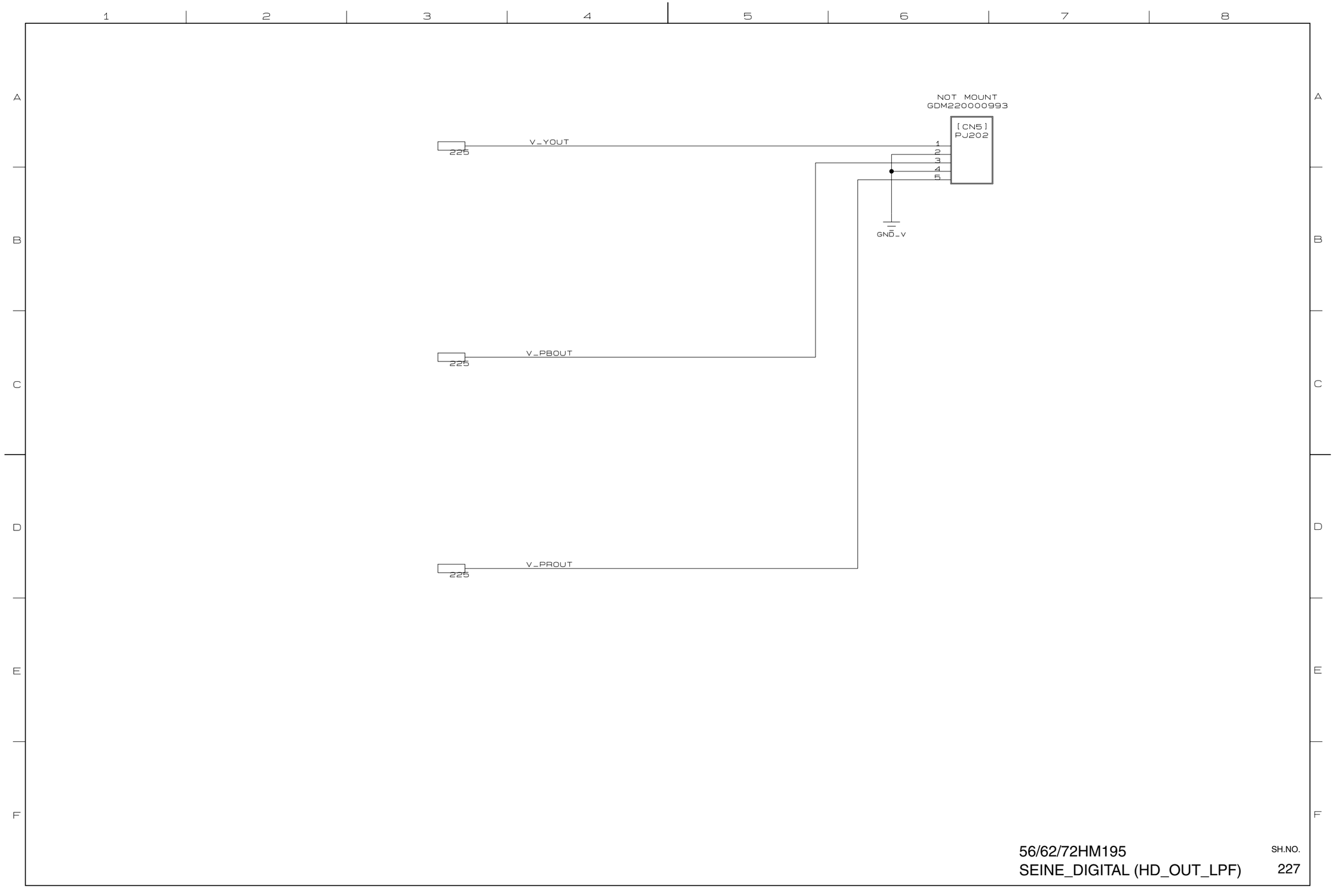
56/62/72HM195
SEINE_DIGITAL (DAC_OUT)

SH.NO. 225



56/62/72HM195
SEINE_DIGITAL (DOWN_CON_OUT_DRIVER)

SH.NO.
226

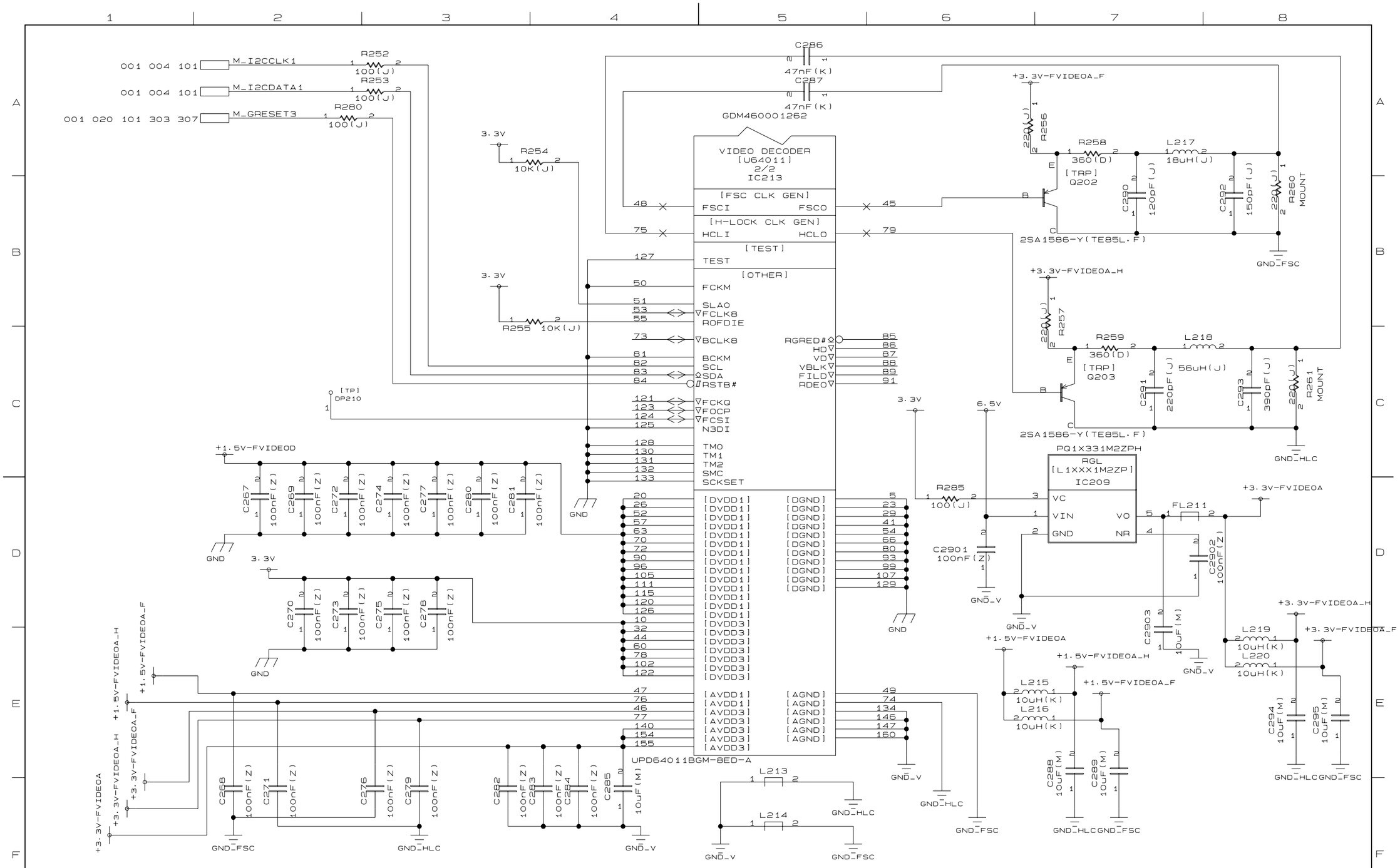


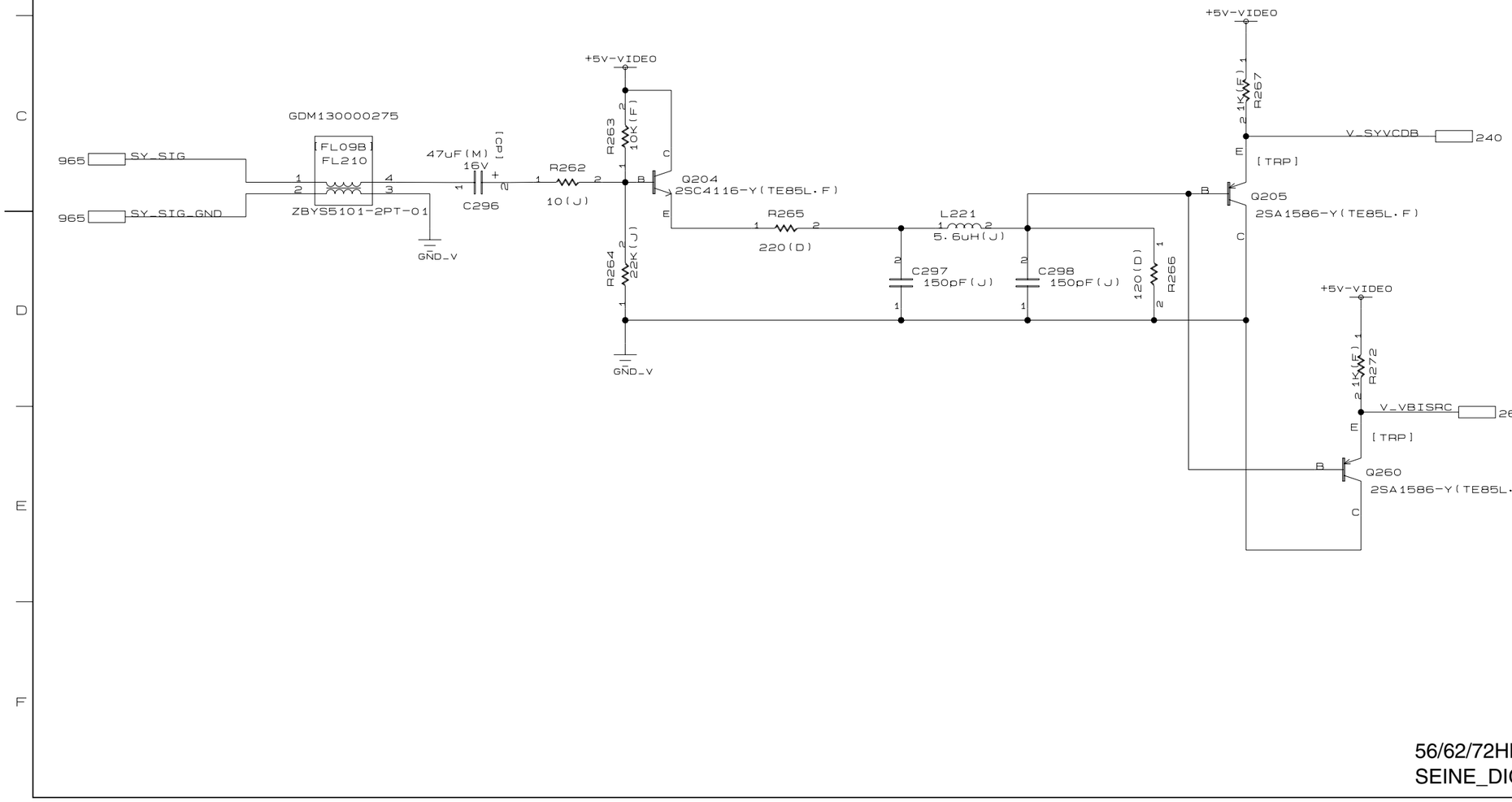
56/62/72HM195
SEINE_DIGITAL (HD_OUT_LPF)

SH.NO.
227

SMD-49 24.576MHZ
X201
C253 10pF(D)
C255 10pF(D)
GND
VIDEO DECODER
[U64011]
1/2
IC213
XI
XO
42
43
[SDRAM IF]
[DIGITAL OUTPUT]
[ANALOG INPUT]
SDRAO
SDRA1
SDRA2
SDRA3
SDRA4
SDRA5
SDRA6
SDRA7
SDRA8
SDRA9
SDRABP
SDRCS#
SDRCKE
SDRRAS#
SDRCLK
SDRCAS#
SDRWE#
SDRDQ0
SDRDQ1
SDRDQ2
SDRDQ3
SDRDQ4
SDRDQ5
SDRDQ6
SDRDQ7
SDRDQ8
SDRDQ9
SDRDQ10
SDRDQ11
SDRDQ12
SDRDQ13
SDRDQ14
SDRDQ15
V_VDQI0 39
V_VDQI1 37
V_VDQI2 35
V_VDQI3 33
V_VDQI4 30
V_VDQI5 27
V_VDQI6 24
V_VDQI7 21
V_VDQI8 22
V_VDQI9 25
V_VDQI10 28
V_VDQI11 31
V_VDQI12 34
V_VDQI13 36
V_VDQI14 38
V_VDQI15 40
ROY0
ROY1
ROY2
ROY3
ROY4
ROY5
ROY6
ROY7
ROY8
ROY9
ROCK
ROC0
ROC1
ROC2
ROC3
ROC4
ROC5
ROC6
ROC7
ROC8
ROC9
FDIO0
FDIO1
FDIO2
FDIO3
FDIO4
FDIO5
FDIO6
FDIO7
FDIO8
FDIO9
AYI1
AYI2
AYI3
AYI4
AYI5
AYI6
ACI1
ACI2
ACI3
ACBI
VCOMY
VRTY
VCLY
VRBY
VRBC1
VRBC2
VCOMC1
VCOMC2
VRTC1
VRTC2
RM222 [RMX4A]
RM223 [RMX4A]
RM224 [RMX4A]
RM225 [RMX4A]
RM226 [RMX4A] 100(J)
RM227 [RMX4A] 100(J)
RM228 [RMX4A] 100(J)
RM229 [RMX4A] 100(J)
RM230 [RMX4A] 33(J)
RM231 [RMX4A] 33(J)
R251 100(J)
R271 33(J)
V_ENCDAT0
V_ENCDAT1
V_ENCDAT2
V_ENCDAT3
V_ENCDAT4
V_ENCDAT5
V_ENCDAT6
V_ENCDAT7
V_ENCCLK
GDM460001268
HY57V161610ETP-8
[MSSD1M16]
IC214
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
CS#
RAS#
CAS#
WE#
BS
CLK
CKE
UDQM
LDQM
NC
NC
[0] D
[1] D
[2] D
[3] D
[4] D
[5] D
[6] D
[7] D
[8] D
[9] D
[10] D
[11] D
[12] D
[13] D
[14] D
[15] D
[VCCQ] [VSSQ]
[VCC] [VSS]
MOUNT
C254 1uF(K) 10V
V_SYVCDB
242
W230 0(X)
C2012 1uF(K) 10V
NOT MOUNT
NOT MOUNT
C2905 100pF(J)
GND_V
3.3V
FL212
C2011 100nF(Z)
C2008 100nF(Z)
C2009 100nF(Z)
C2010 100nF(Z)
C256 100nF(Z)
C257 100nF(Z)
C258 100nF(Z)
C259 100nF(Z)
C260 100nF(Z)
C261 100nF(Z)
C262 100nF(Z)
C263 100nF(Z)
C264 10uF(M)16V [CP]
C265 100nF(Z)
C266 100nF(Z)

56/62/72HM195
SEINE_DIGITAL (MACRO_VCD)
SH.NO. 240


001 004 101 M_I2CCLK1
001 004 101 M_I2CDATA1
001 020 101 303 307 M_GRESET3
R252 100(J)
R253 100(J)
R280 100(J)
C286 47nF(K)
C287 47nF(K)
GDM460001262
3.3V
R254 10K(J)
R255 10K(J)
VIDEO DECODER
[U64011]
2/2
IC213
[FSC CLK GEN]
FSCI
FSCO
[H-LOCK CLK GEN]
HCLI
HCLO
[TEST]
TEST
[OTHER]
FCKM
SLAO
FCLK8
ROFDIE
BCLK8
BCKM
SCL
SDA
RSTB#
FCKQ
FOCP
FCSI
N3DI
TMO
TM1
TM2
SMC
SCKSET
[DVDD1]
[DVDD3]
[DGND]
[AVDD1]
[AVDD3]
[AGND]
UPD64011BGM-8ED-A
RGRED#
HD
VD
VBLK
FILD
RDEO
[TP] DP210
+1.5V-FVIDEOD
+3.3V-FVIDEOA_F
+3.3V-FVIDEOA_H
+1.5V-FVIDEOA_H
+1.5V-FVIDEOA_F
+3.3V-FVIDEOA
+1.5V-FVIDEOA
6.5V
R256 220(J)
R257 220(J)
R258 360(D)
R259 360(D)
L217 18uH(J)
L218 56uH(J)
[TRP] Q202
[TRP] Q203
2SA1586-Y(TE85L.F)
C290 120pF(J)
C291 220pF(J)
C292 150pF(J)
C293 390pF(J)
R260 220(J) MOUNT
R261 220(J) MOUNT
GND_FSC
GND_HLC
PQ1X331M2ZPH
RGL
[L1XXX1M2ZP]
IC209
R285 100(J)
FL211
C2901 100nF(Z)
C2902 100nF(Z)
C2903 10uF(M)
L219 10uH(K)
L220 10uH(K)
L215 10uH(K)
L216 10uH(K)
C294 10uF(M)
C295 10uF(M)
C288 10uF(M)
C289 10uF(M)
L213
L214
GND_V
C267 100nF(Z)
C269 100nF(Z)
C272 100nF(Z)
C274 100nF(Z)
C277 100nF(Z)
C280 100nF(Z)
C281 100nF(Z)
C270 100nF(Z)
C273 100nF(Z)
C275 100nF(Z)
C278 100nF(Z)
C268 100nF(Z)
C271 100nF(Z)
C276 100nF(Z)
C279 100nF(Z)
C282 100nF(Z)
C283 100nF(Z)
C284 100nF(Z)
C285 10uF(M)
56/62/72HM195
SEINE_DIGITAL (MACRO_VCD)
SH.NO.
241



56/62/72HM195
SEINE_DIGITAL (VIDEO_LPF)

SH.NO.
242

GDM460001099
UPD61052GD-LML-A

uPD61052 1/4
[U61052]
IC255

[Clock and Reset]

SCLK
STCLK
PSTOP
RESET
PWM

[Host CPU Interface]

CA0/FA0
CA1/FA1
CA2/FA2
CA3/FA3
CA4/FA4
CA5/FA5

CD0/FD0
CD1/FD1
CD2/FD2
CD3/FD3
CD4/FD4
CD5/FD5
CD6/FD6
CD7/FD7

CCS
CWE/CSDI
CRE

CWAIT/FOE
CINT

CMODE0/CSCLK
CMODE1/CSDO
CMODE2

[SDRAM Interface]

MD0
MD1
MD2
MD3
MD4
MD5
MD6
MD7
MD8
MD9
MD10
MD11
MD12
MD13
MD14
MD15
MD16
MD17
MD18
MD19
MD20
MD21
MD22
MD23
MD24
MD25
MD26
MD27
MD28
MD29
MD30
MD31

MA0
MA1
MA2
MA3
MA4
MA5
MA6
MA7
MA8
MA9
MA10
MA11
MA12
MA13

MCS
MRAS
MCAS
MWE
MDQM

MCLKE
MCLK

E_27MCLK_VCX0
3.3V
R2508
10K(F)
E_PSTOP
E_RESET

M_SBA1
M_SBA2
M_SBA3
M_SBA4
M_SBA5
M_SBA6

E_ENCCE
E_ENCWE
E_ENCOE

RM258 [RMX4A] 10K(J)

M_SBD8
M_SBD9
M_SBD10
M_SBD11
M_SBD12
M_SBD13
M_SBD14
M_SBD15

R2502
100(J)
E_ENCINT

RM250 [RMX4A]
RM251 [RMX4A]
RM252 [RMX4A]
RM253 [RMX4A]
RM254 [RMX4A]
RM255 [RMX4A]
RM256 [RMX4A]
RM257 [RMX4A]

すべて100Ω

GDM460001215
EDS6432AFTA-6B-E

SDRAM 64Mbit
[MSSD2M32]
IC250

Elpida:EDS6432AFTA

A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10

BS0
BS1

CLK
CKE

CSZ
RASZ
CASZ
WEZ

DQM0
DQM1
DQM2
DQM3

DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
DQ16
DQ17
DQ18
DQ19
DQ20
DQ21
DQ22
DQ23
DQ24
DQ25
DQ26
DQ27
DQ28
DQ29
DQ30
DQ31

V_MEAD0
V_MEAD1
V_MEAD2
V_MEAD3
V_MEAD4
V_MEAD5
V_MEAD6
V_MEAD7
V_MEAD8
V_MEAD9
V_MEAD10
V_MEAD11
V_MEAD12
V_MEAD13
V_MECKE
V_MECS
V_MERAS
V_MECAS
V_MEWE
V_MEDQM
V_MECLK

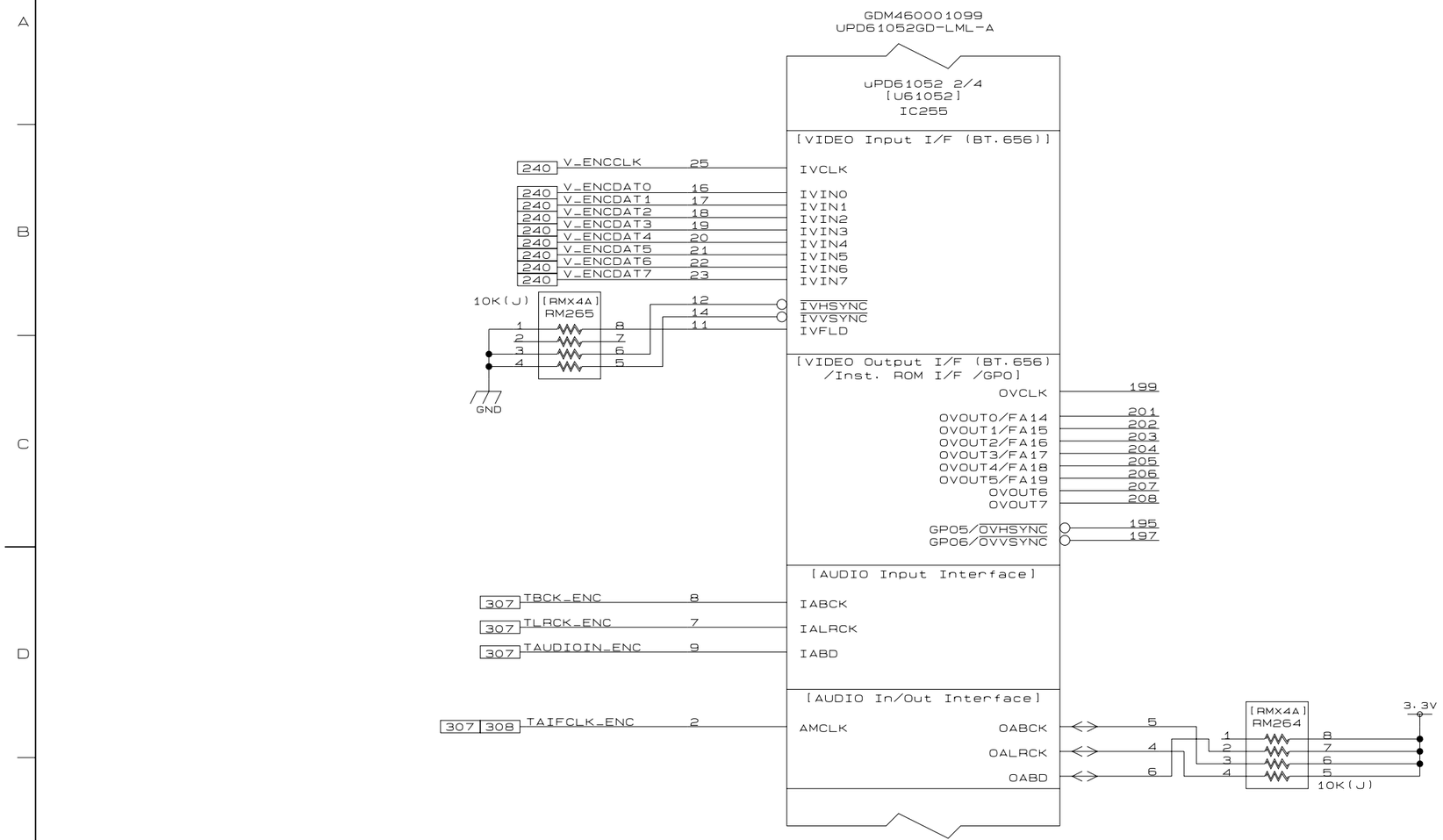
RM259 [RMX4A]
RM260 [RMX4A]
RM261 [RMX4A]
RM262 [RMX4A]
RM263 [RMX4A]

すべて100Ω

[Vcc] [Vss]
VccQ VssQ
N.C

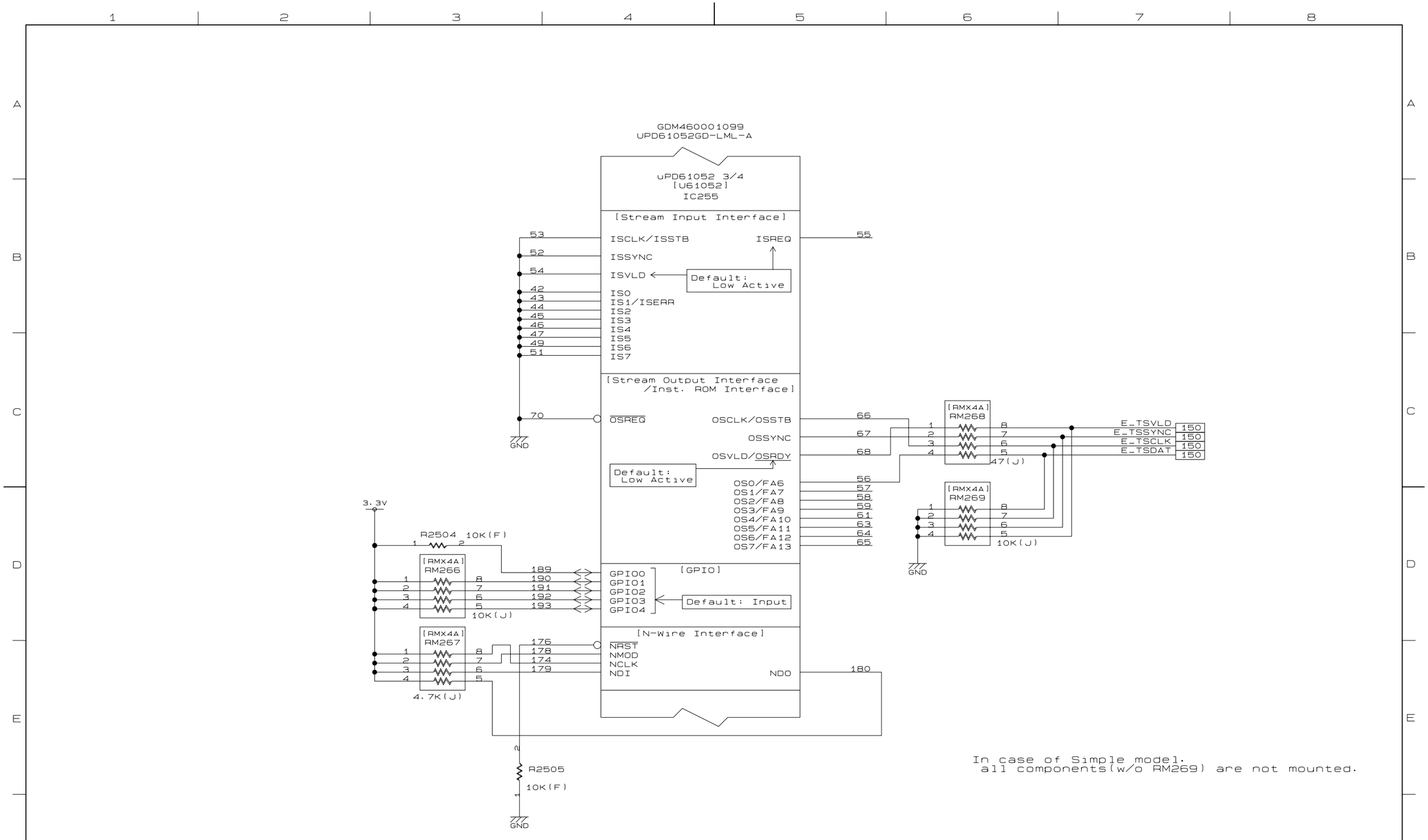
56/62/72HM195
SEINE_DIGITAL (MPEG_Enc. (CLK_SDRAM))

SH.NO.
250



56/62/72HM195
SEINE_DIGITAL (MPEG_Enc. (AV_I/F))

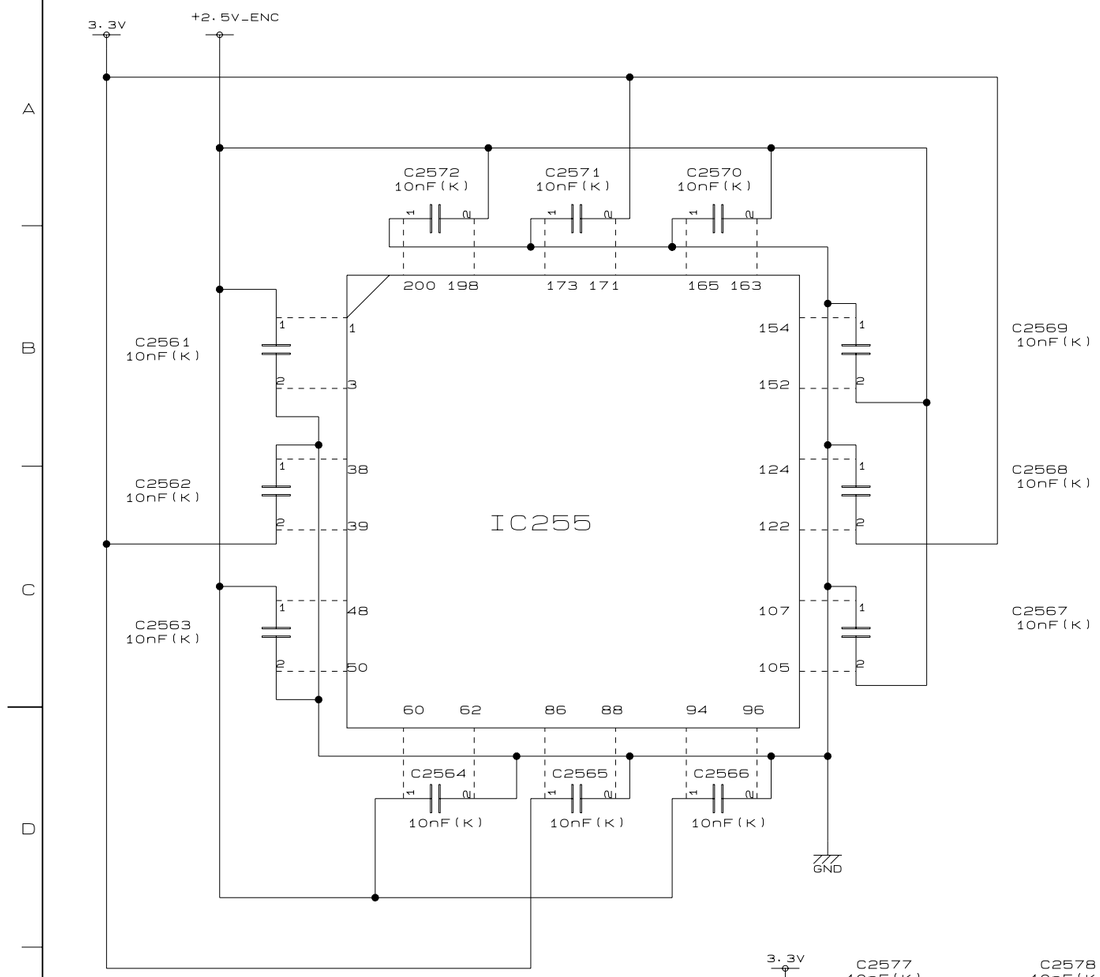
SH.NO.
251

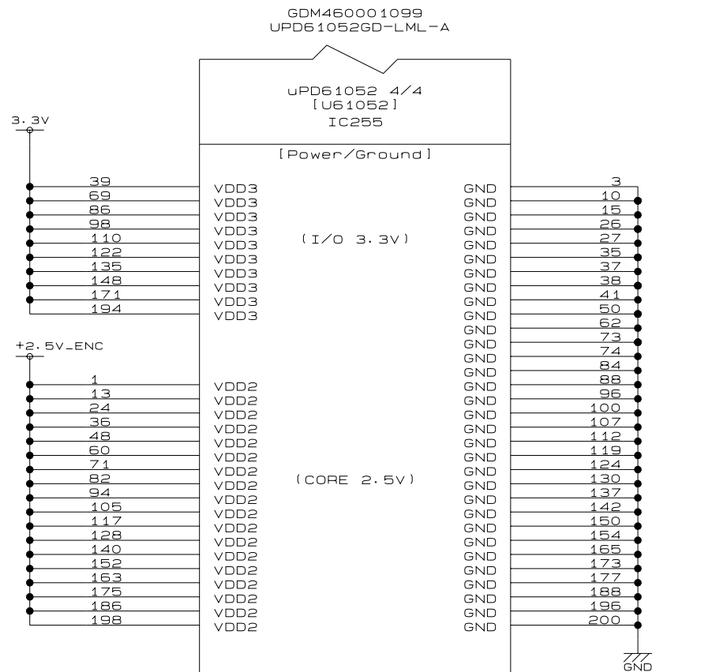


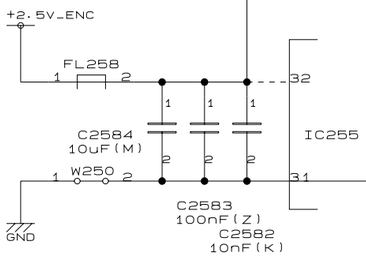
In case of Simple model.
all components(w/o RM269) are not mounted.

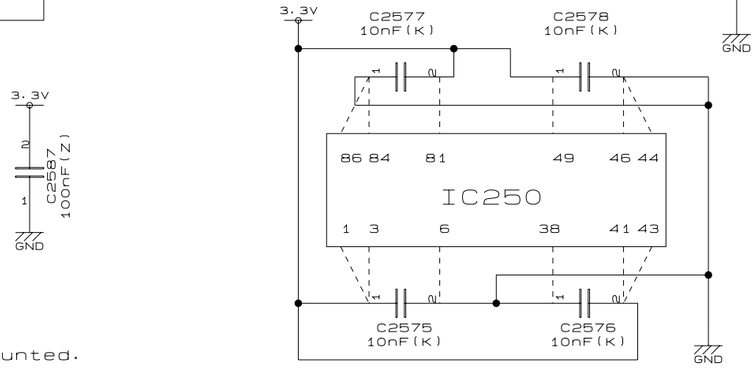
56/62/72HM195
SEINE_DIGITAL (MPEG_Enc. (STREAM_I/F))

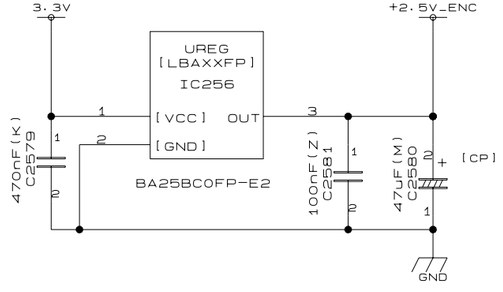
SH.NO.
252







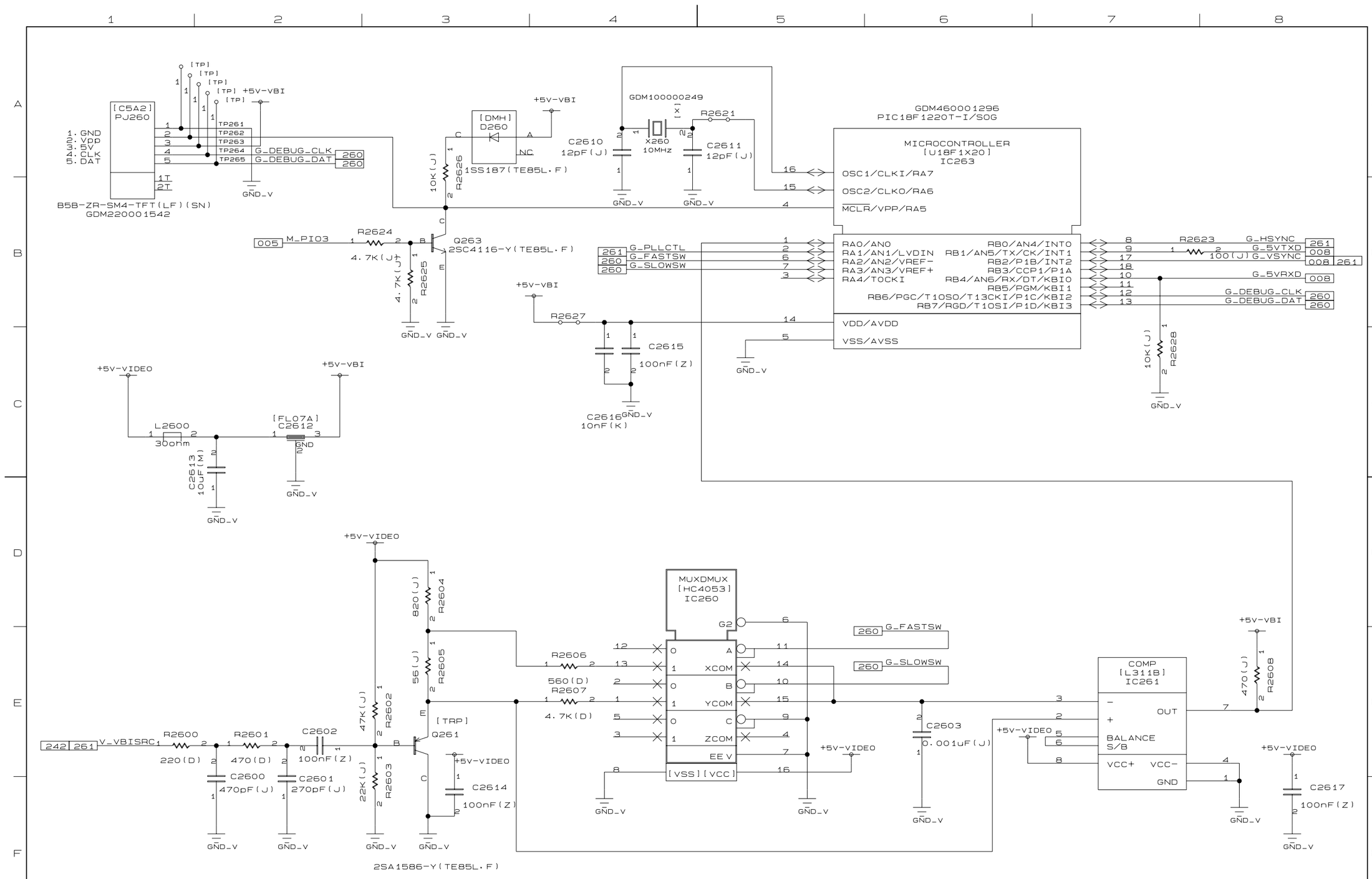




In case of Simple model.
all components are not mounted.

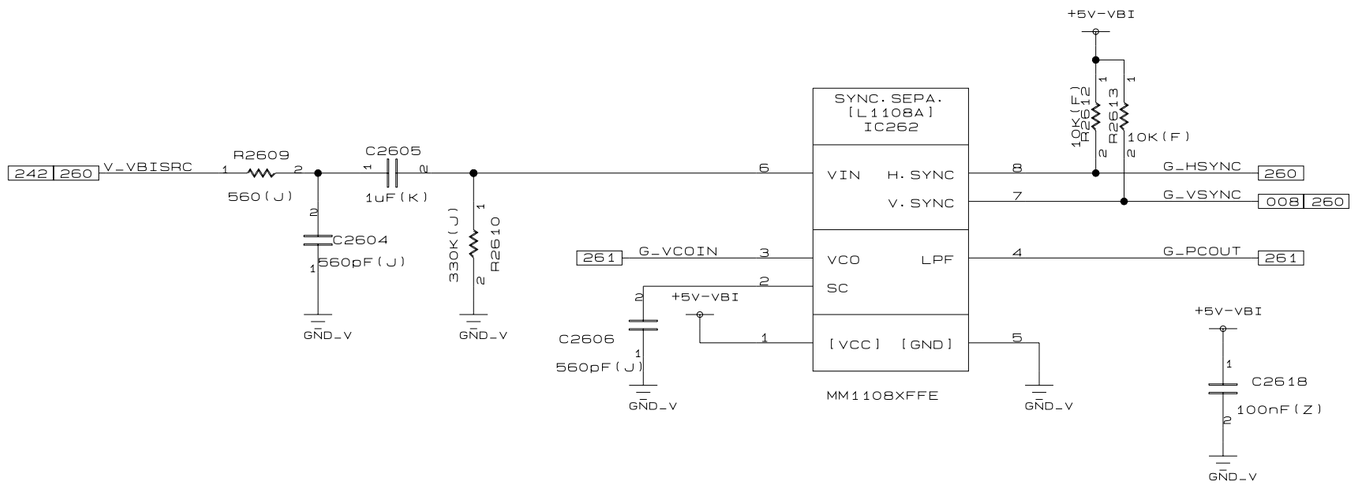
56/62/72HM195
SEINE_DIGITAL (MPEG_Enc. (POWER))

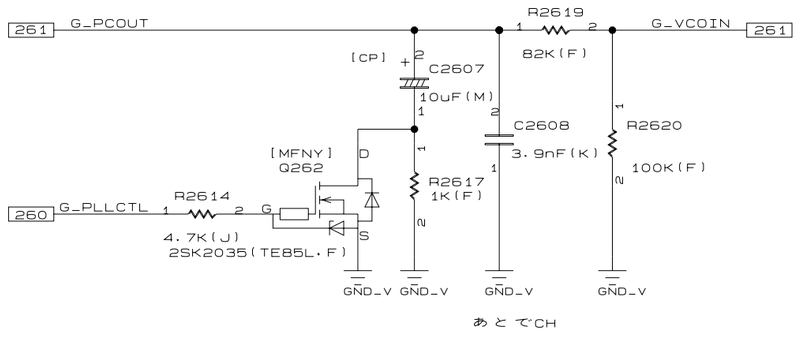
SH.NO.
253



56/62/72HM195
SEINE_DIGITAL (LPF_Slicer)

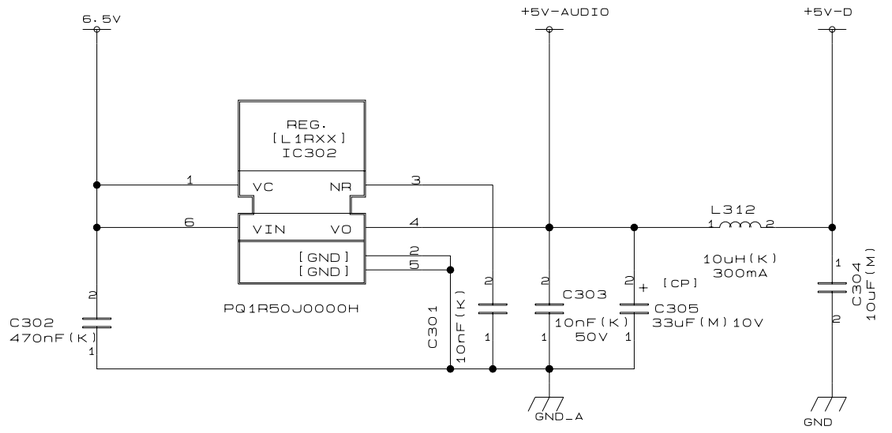
SH.NO.
260





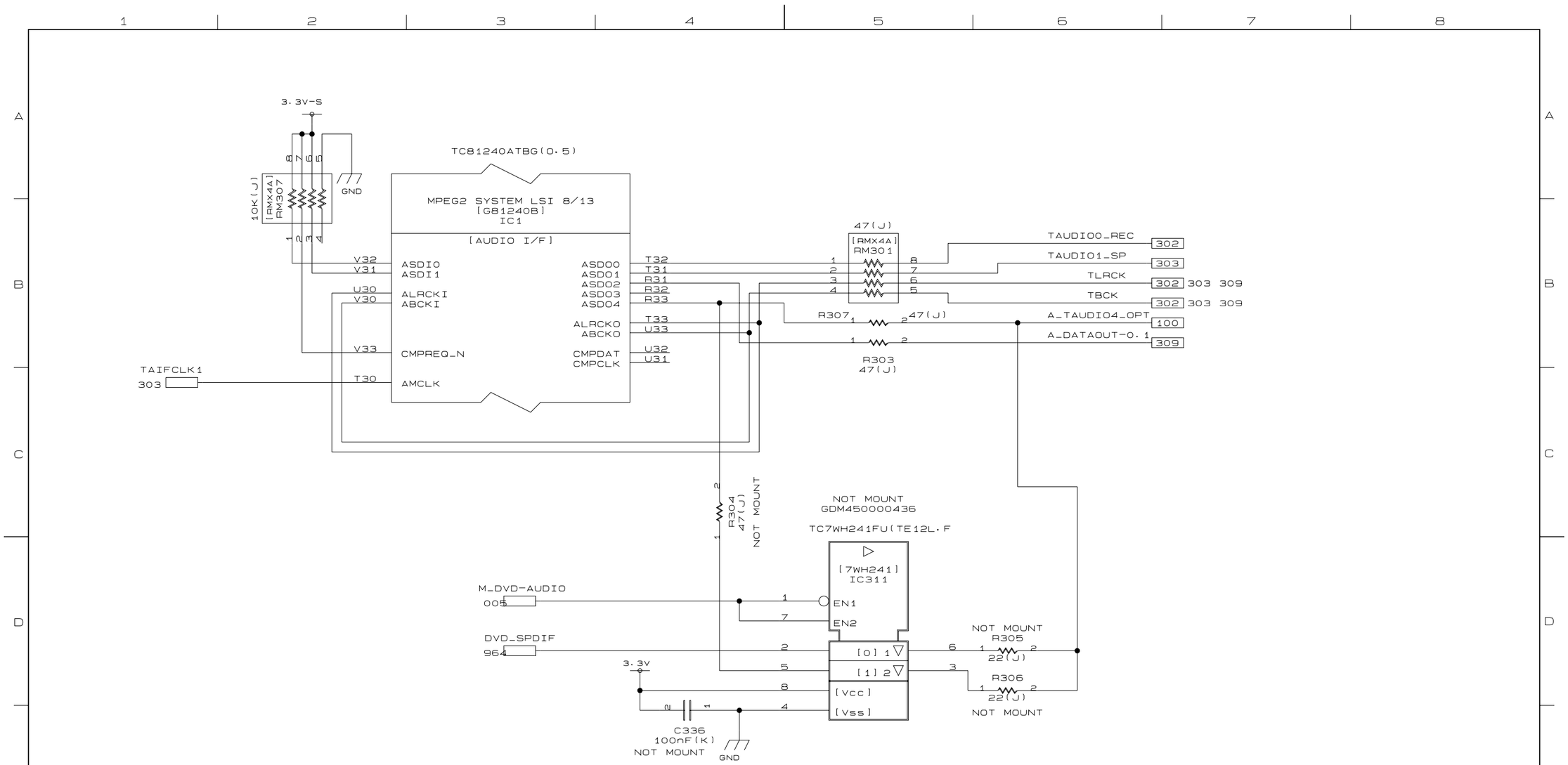
56/62/72HM195
SEINE_DIGITAL (H/V_Sync_Sep.)

SH.NO.
261



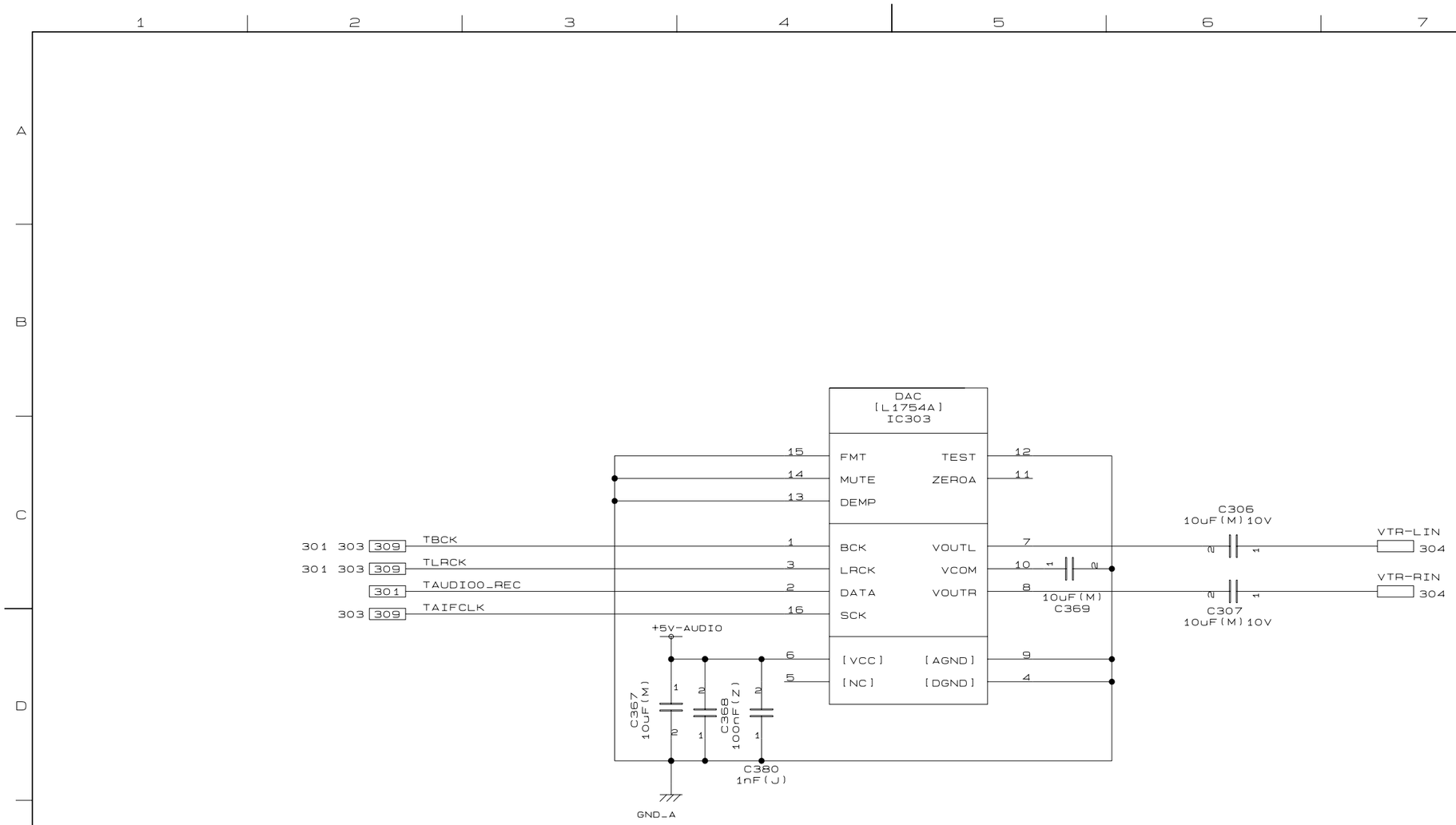
56/62/72HM195
SEINE_DIGITAL (AUDIO_POWER)

SH.NO.
300



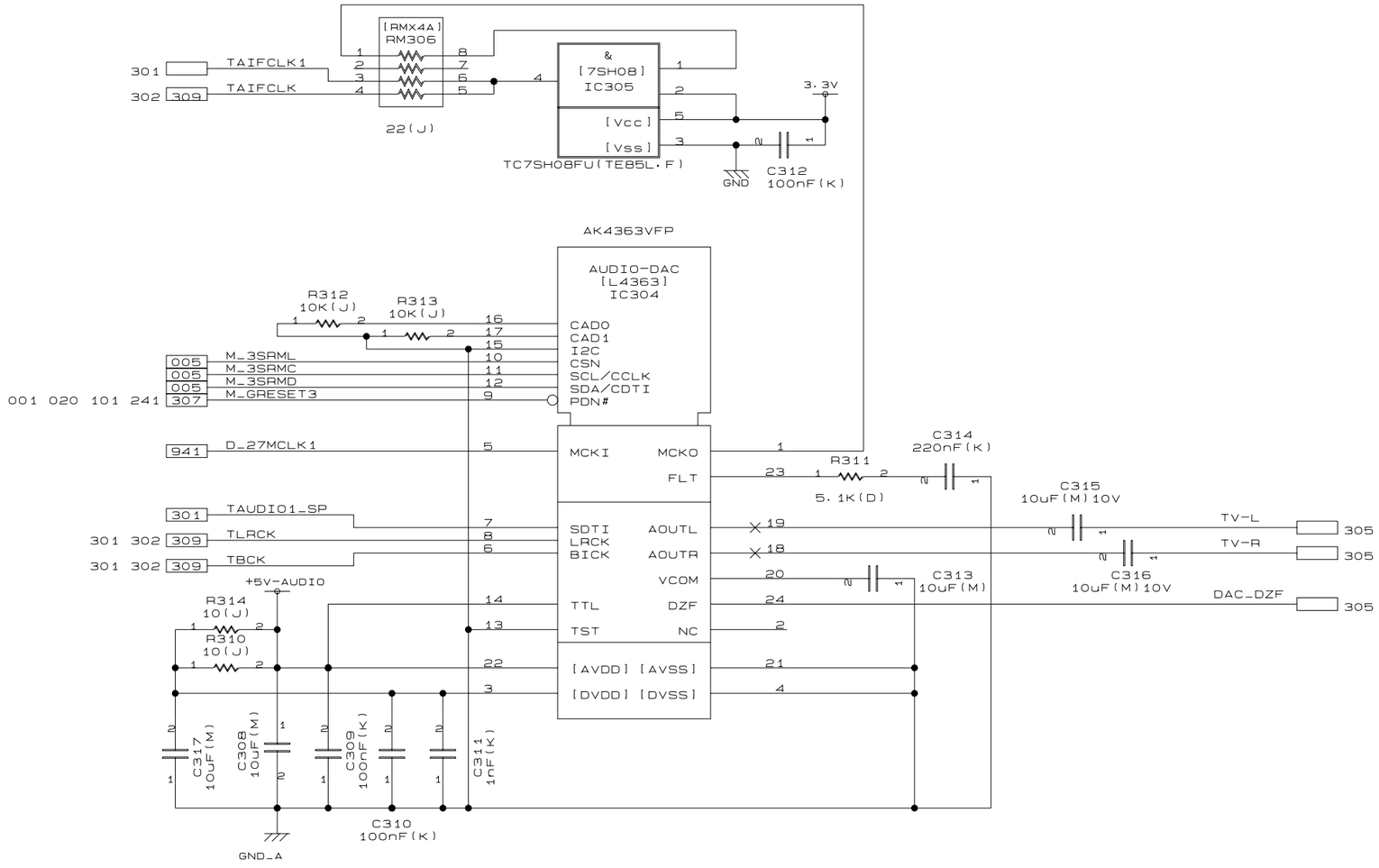
56/62/72HM195
SEINE_DIGITAL (SEINE_AUDIO_I/F)

SH.NO.
301



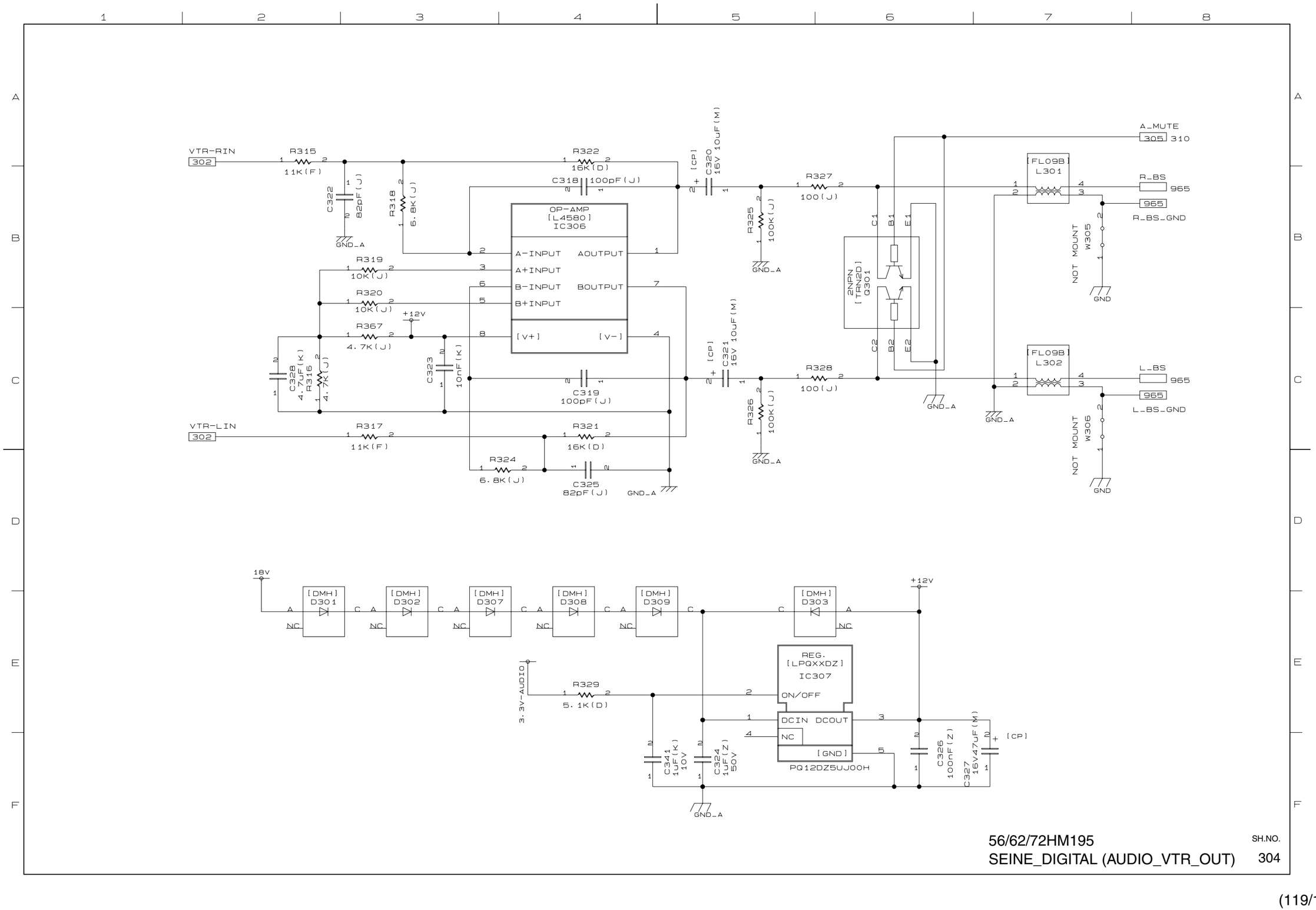
56/62/72HM195
SEINE_DIGITAL (AUDIO_DAC)

SH.NO.
302



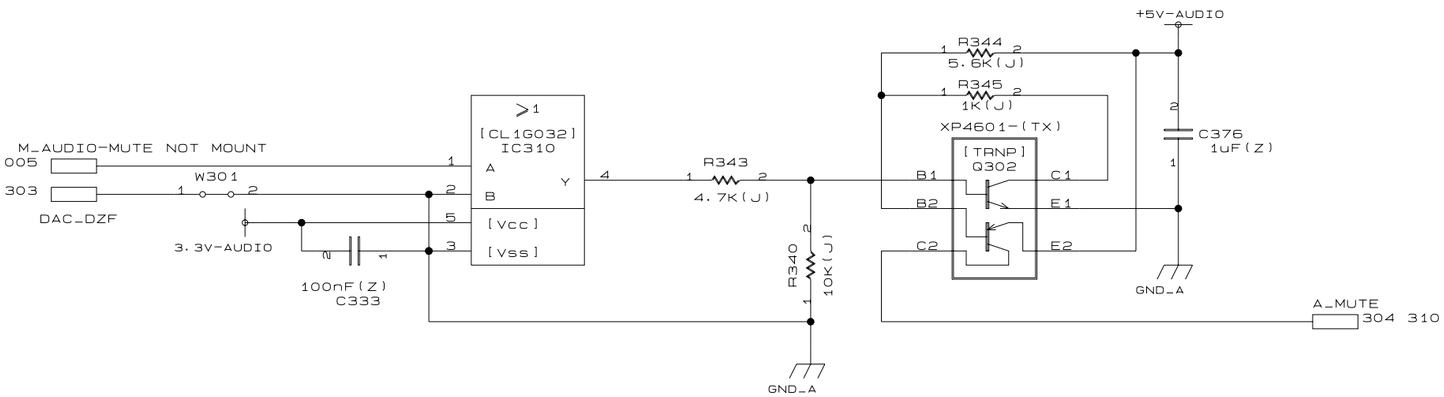
56/62/72HM195
SEINE_DIGITAL (AUDIO_PLL/DAC)

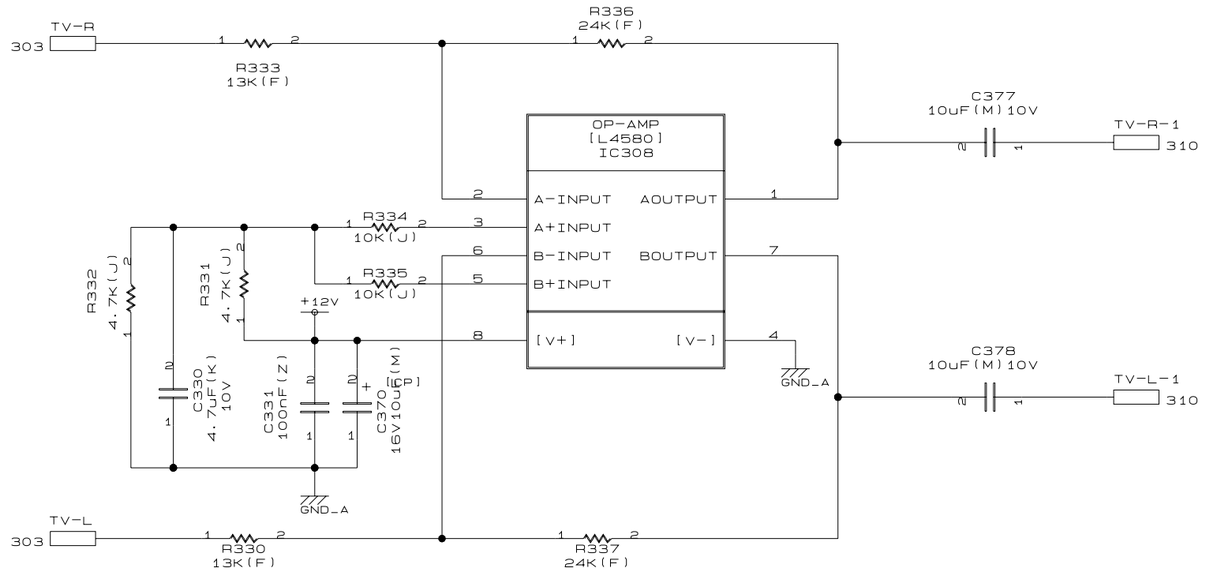
SH.NO.
303



56/62/72HM195
SEINE_DIGITAL (AUDIO_VTR_OUT)

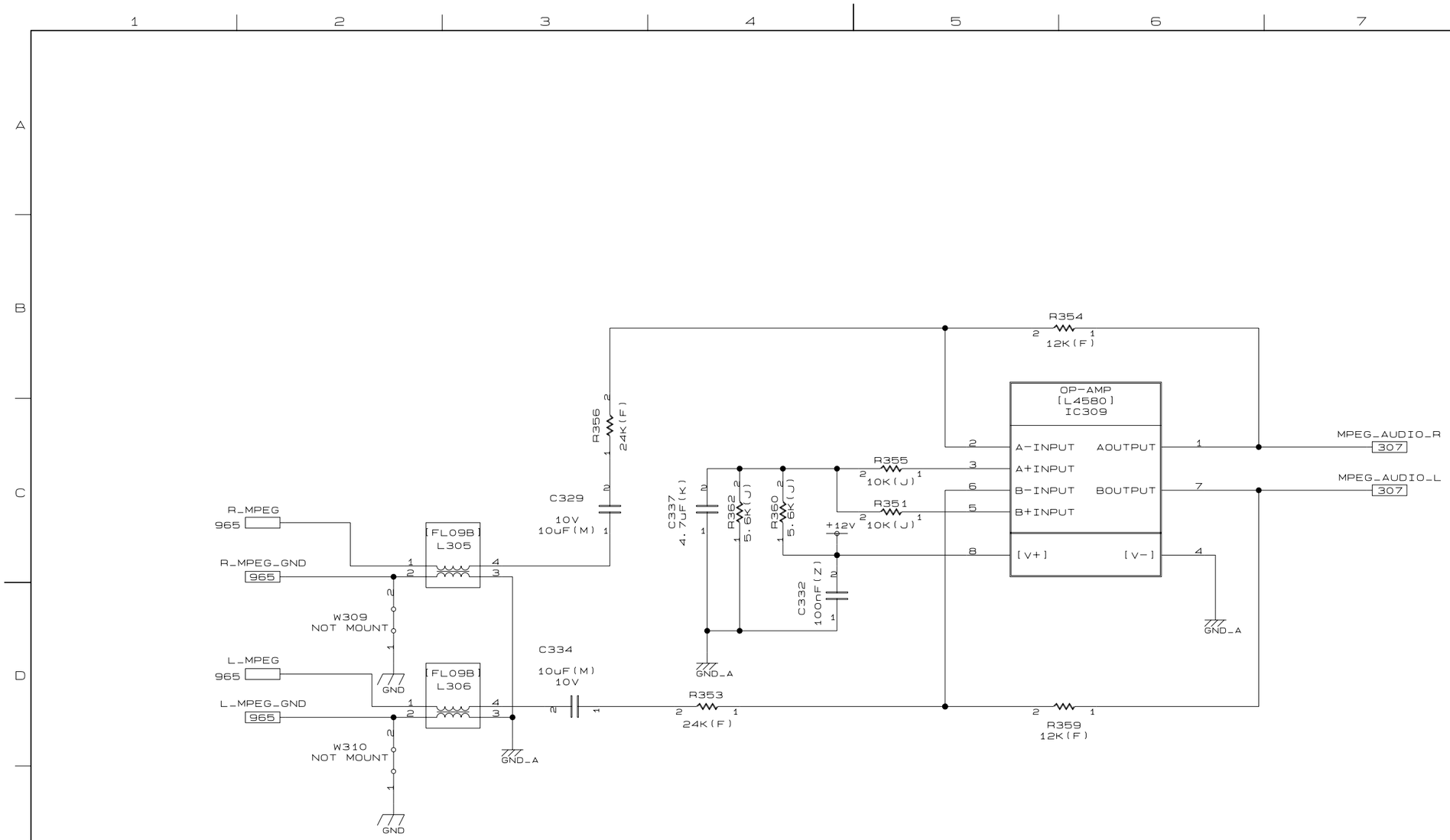
SH.NO.
304





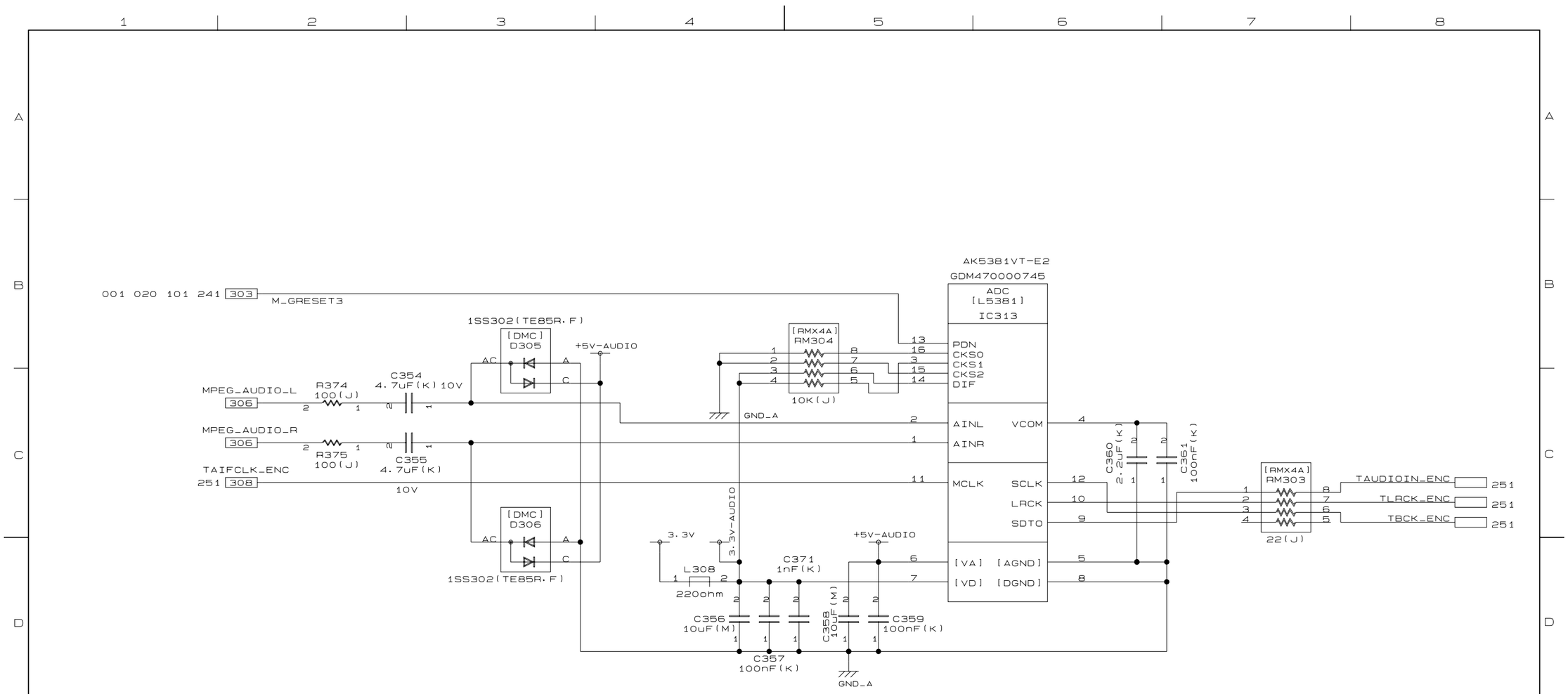
56/62/72HM195
SEINE_DIGITAL (AUDIO_SP_OUT)

SH.NO.
305



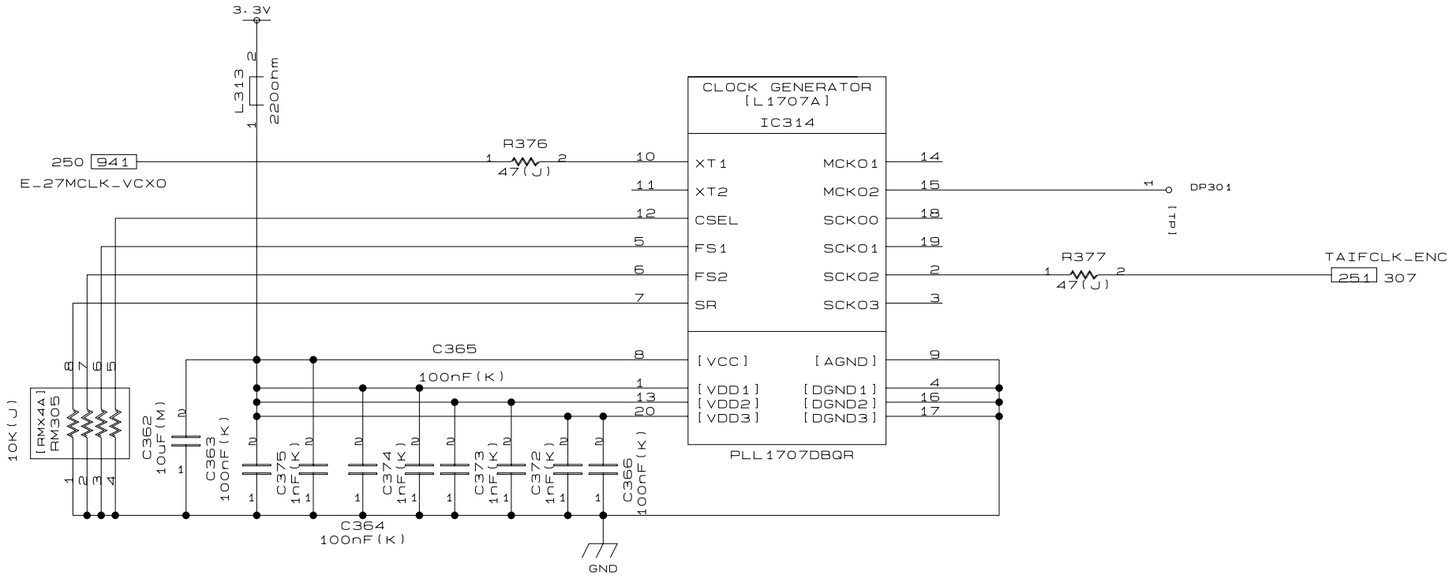
56/62/72HM195
SEINE_DIGITAL (MPEG_AUDIO_TV_IN)

SH.NO. 306



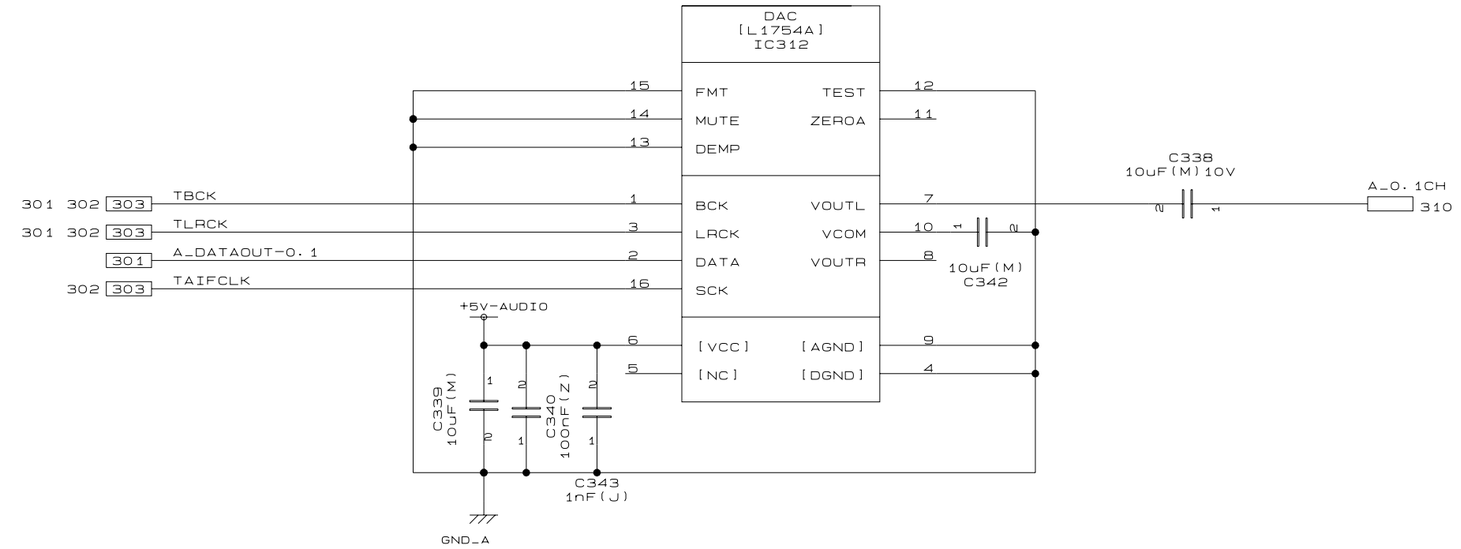
56/62/72HM195
SEINE_DIGITAL (MPEG_AUDIO_ADC)

SH.NO.
307



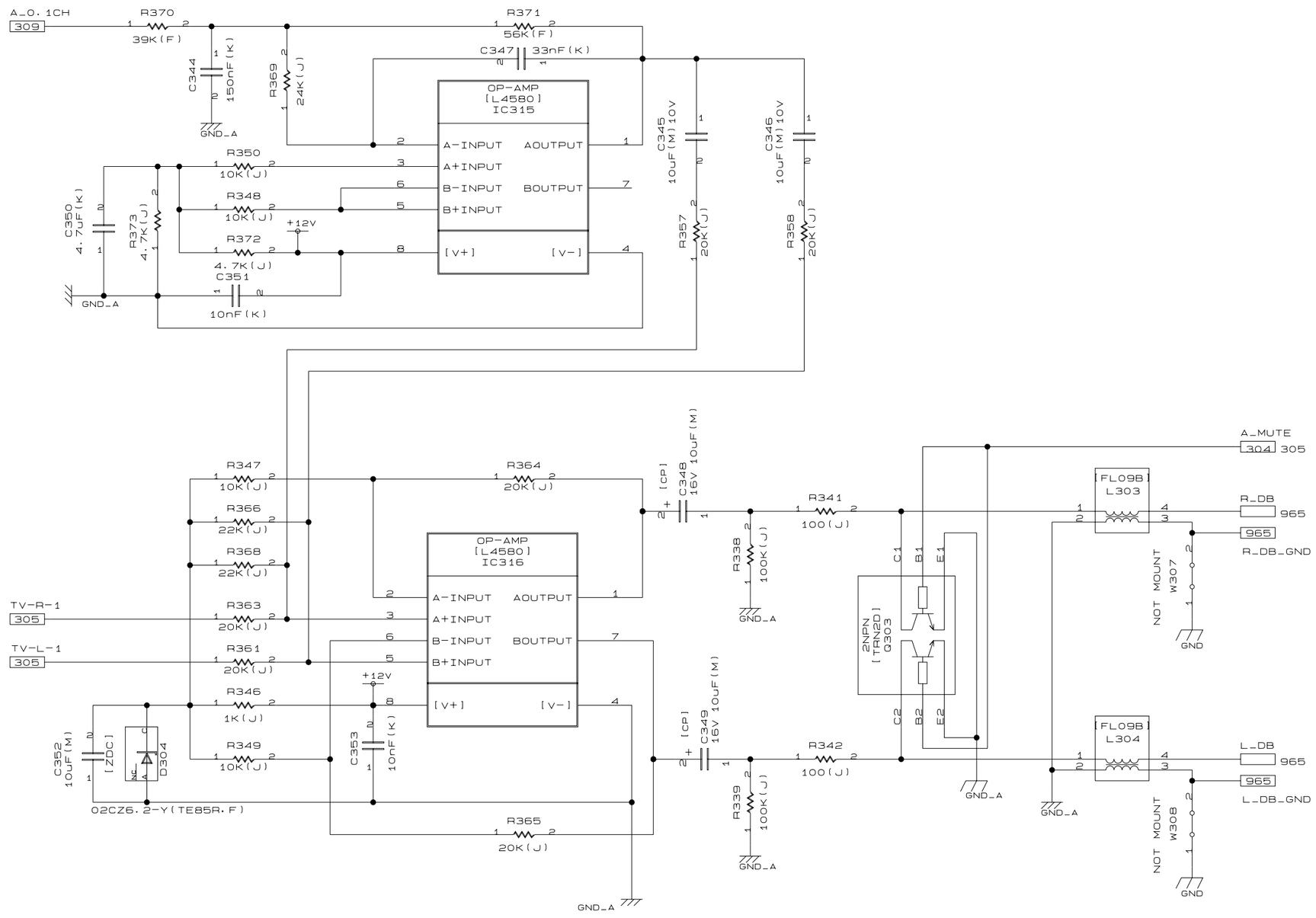
56/62/72HM195
SEINE_DIGITAL (MPEG_AUDIO_PLL)

SH.NO.
308



56/62/72HM195
SEINE_DIGITAL (AUDIO_DAC_0.1CH)

SH.NO.
309



56/62/72HM195
SEINE_DIGITAL (AUDIO_VTR_OUT)

SH.NO.
310

GDM460001083
MB86619CPFF-G-BNDE1

IEEE1394 CONTROLLER 1/2
[U86619A]
IC401

R426 0(X) 1394_GND GND
R427 0(X) 1394_GND GND
R428 0(X) 1394_GND GND

R405 5.1K(J) C401 270pF(J) 1394_GND
R406 56(J)
R407 56(J)

GDM2220001446 [C4A2] PJ401
GDM130000347 [FL09J] L401
EXC28CE201U
1T 2T GND

R408 56(J)
R409 56(J)
C402 1uF(Z) 1394_GND

R410 5.1K(J) C403 270pF(J) 1394_GND
R411 56(J)
R412 56(J)

GDM2220001446 [C4A2] PJ402
GDM130000347 [FL09J] L402
EXC28CE201U
1T 2T GND

R413 56(J)
R414 56(J)
S_TPBIAS1 400
C404 1uF(Z) 1394_GND

1394+3.3V
M_1394RST 001

[MPU IF]

A12		M_SBA12	78	D15	104	M_SBD15	002 006 007 250 701
A11	003 006 007	701 M_SBA11	79	D14	105	M_SBD14	002 006 007 250 701
A10	003 006 007	701 M_SBA10	80	D13	106	M_SBD13	002 006 007 250 701
A9	003 006 007	701 M_SBA9	83	AD12	107	M_SBD12	002 006 007 250 701
A8	003 006 007	700 M_SBA8	84	AD11	108	M_SBD11	002 006 007 250 701
A7	003 006 007	700 M_SBA7	85	AD10	110	M_SBD10	002 006 007 250 701
A6	003 006 007	701 M_SBA6	86	AD9	111	M_SBD9	002 006 007 250 701
A5	003 006 007	250 701 M_SBA5	88	AD8	112	M_SBD8	002 006 007 250 701
A4	003 006 007	250 701 M_SBA4	89	AD7	113	M_SBD7	002 006 007 017 701
A3	003 006 007	017 250 701 M_SBA3	90	AD6	114	M_SBD6	002 006 007 017 701
A2	003 006 007	017 250 700 701 M_SBA2	91	AD5	116	M_SBD5	002 006 007 017 701
A1	003 006 007	250 700 701 M_SBA1	92	AD4	117	M_SBD4	002 006 007 017 701
		M_SBCE3	97	AD3	118	M_SBD3	002 006 007 017 701
XCS		002 M_SBOE2	99	AD2	119	M_SBD2	002 006 007 017 701
XRD(R/XW)		002 M_SBWE2	98	AD1	120	M_SBD1	002 006 007 017 701
XWR(XDS)				DO	121	M_SBD0	002 006 007 017 701
ALE			100				
XDACK			125	DREQ	124		
XDMRD			127				
XDMWR			126	XINT	101	S_1394INT	001

[IEEE1394 IF]

TPA0	68	TPBIAS0	69 S_TPBIAS0 400
XTPA0	67	TPBIAS1	60 S_TPBIAS1 400
TPB0	66	TPBIAS2	51
XTPB0	65		
TPA1	59	TPA2	50
XTPA1	58	XTPA2	49
TPB1	57	TPB2	48
XTPB1	56	XTPB2	47

1394_GND

XO	33	FIL	38
XI	31	RF	39
		RO	42
CPS	41		
PMODE	28	LINKON	29

R419 4.7K(J)
R418 3.9K(J)
C408 3.3nF(K)
1394_GND 1394_GND

[AUDIO IF]

LRCK	173	MCLK	164
BCLK	166		
SDO	170		
SD1	169		
SD2	168		
VSS	174		

1394+3.3V
[X] X401 24.576MHz
C405 24pF(J)
C406 24pF(J)
GND GND
1394_GND

XOA	153	FILA1	157
XIA	151	RFA	155

1394_GND 1394_GND

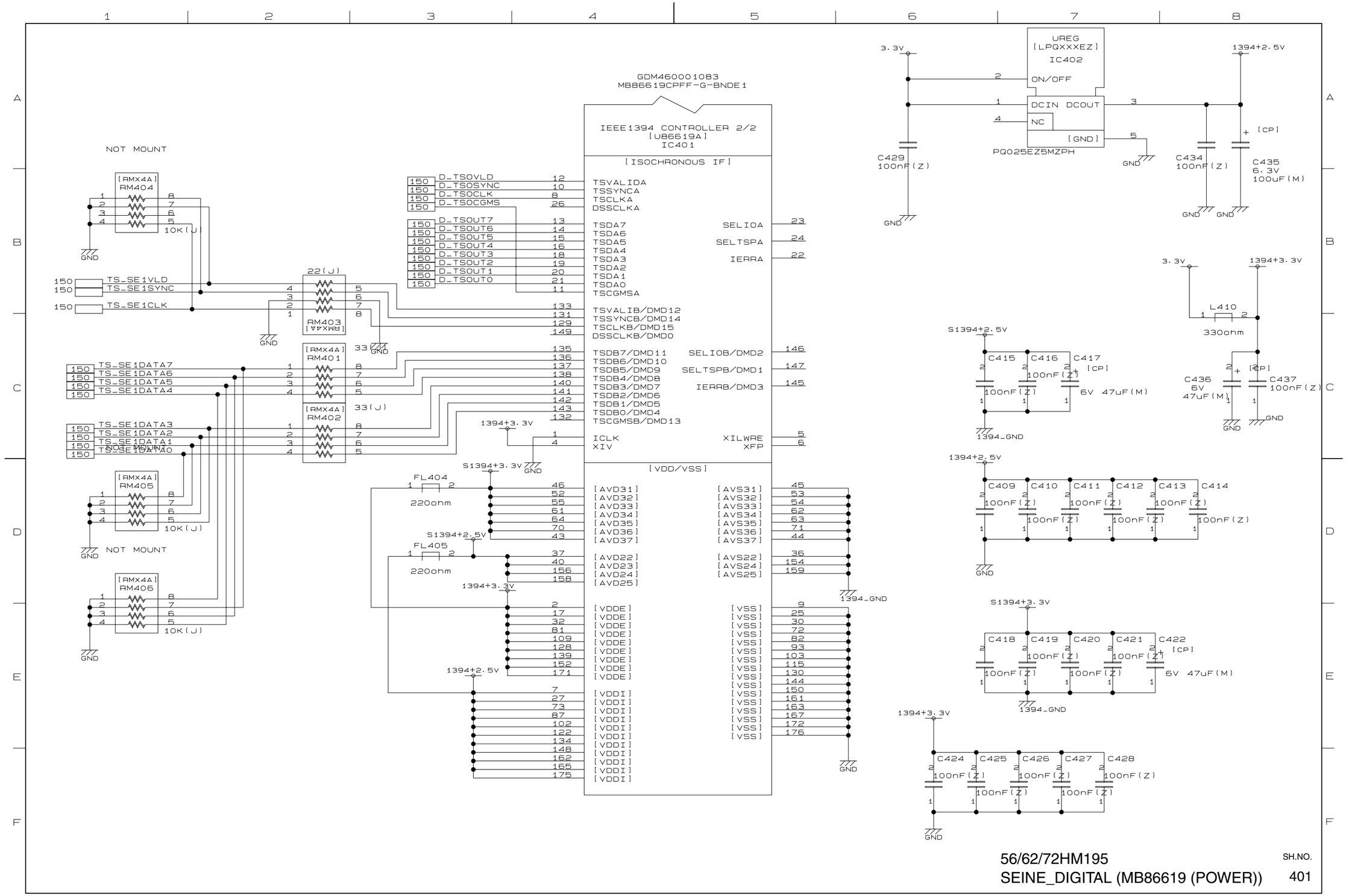
[TEST]

SAT	3		
XSM	74	S200MODE	34
XTST	75	TEST2	35
SMCK	76	TEST3	160
MST	77		

OPEN :S400
PULL-UP:S200
1394_GND

56/62/72HM195
SEINE_DIGITAL (MB86619)

SH.NO.
400



56/62/72HM195
SEINE_DIGITAL (MB86619 (POWER))

SH.NO.
401

GDM450000528

[G95144TQ144]
IC701

[RMX4A]
RM706

004 JTAG_TDI 1 — 8
004 JTAG_TMS 2 — 7
004 JTAG_TCK 3 — 6
004 JTAG_TDO 4 — 5
22(J)

002 M_SBCLKO — 30 IO/GCK1
703 P_PODCLK — 32 IO/GCK2
38 IO/GCK3
5 IO/GTS1
6 IO/GTS2
2 IO/GTS3
3 IO/GTS4
001 M_PODRST — 143 IO/GSR

67 TCK
63 TDI
122 TDO
65 TMS

101 DEMO_D7 — 4 I/0001
101 DEMO_D6 — 7 I/0002
101 DEMO_D5 — 9 I/0003
101 DEMO_D4 — 10 I/0004
form TUNER
11 I/0005
12 I/0006
13 I/0007
14 I/0008
101 DEMO_D3 — 15 I/0009
101 DEMO_D2 — 16 I/0010
101 DEMO_D1 — 17 I/0011
101 DEMO_D0 — 19 I/0012
20 I/0013
21 I/0014
703 P_TSDAT0 — 22 I/0015
703 P_TSDAT1 — 23 I/0016
703 P_TSDAT2 — 24 I/0017
703 P_TSDAT3 — 25 I/0018
703 P_TSDAT4 — 26 I/0019
703 P_TSDAT5 — 27 I/0020
703 P_TSDAT6 — 28 I/0021
703 P_TSDAT7 — 31 I/0022
101 DEMO_SYC — 703 P_TSSYNC — 33 I/0023
101 DEMO_VAL — 703 P_TSVLD — 34 I/0024
101 DEMO_ERR — 703 P_TSCLK — 35 I/0025
101 DEMO_CLK — 39 I/0026
40 I/0027
101 POD_CRX — 703 P_PODSBD0 — 41 I/0028
101 POD_DRX — 703 P_PODSBD1 — 43 I/0029
703 P_PODSBD2 — 44 I/0030
703 P_PODSBD3 — 45 I/0031
703 P_PODSBD4 — 46 I/0032
703 P_PODSBD5 — 48 I/0033
703 P_PODSBD6 — 49 I/0034
703 P_PODSBD7 — 50 I/0035
703 P_PODCE1 — 51 I/0036
703 P_PODCE2 — 52 I/0037
703 P_PODWE — 53 I/0038
703 P_PODOE — 54 I/0039
703 P_PODRST — 56 I/0040
703 P_PODIORD — 57 I/0041
703 P_PODIOWR — 58 I/0042
703 P_REG — 59 I/0043
703 P_PODSBA0 — 60 I/0044
703 P_PODSBA8 — 61 I/0045
703 P_PODSBA9 — 64 I/0046
66 I/0047

to POD
22(J) R728
M_UATXD3_SW 009 — 1 — 2
M_UARXD3_SW 009 — 1 — 2
22(J) R729
to G-LINK buffer

to POD

3.3V

8 VCCINT
42 VCCINT
84 VCCINT
141 VCCINT
1 VCCIO
37 VCCIO
55 VCCIO
73 VCCIO
109 VCCIO
127 VCCIO

GND 18 29 36 47 62 72 89 90 99 108 114 123 144

XC95144XL-10TQG144C-H95

I/0048 68 P_IREQ — 703
I/0049 69 P_WAIT — 703
I/0050 70 P_CD1 — 703
I/0051 71 P_CD2 — 703
I/0052 74 P_VS1 — 703
I/0053 75 P_VS2 — 703
I/0054 76 P_PODTS0 — 703
I/0055 77 P_PODTS1 — 703
I/0056 78 P_PODTS2 — 703
I/0057 79 P_PODTS3 — 703
I/0058 80 P_PODTS4 — 703
I/0059 81 P_PODTS5 — 703
I/0060 82 P_PODTS6 — 703
I/0061 83 P_PODTS7 — 703
I/0062 85 P_PODSYNC — 703
I/0063 86 P_PODVLD — 703
I/0064 87
I/0065 88 P_BUS0 — 701
I/0066 91 P_BUS1 — 701
I/0067 92 P_DIR — 701
I/0068 93 P_CARDEN — 701
I/0069 94 P_PLDSBD0 — 701
I/0070 95 P_PLDSBD1 — 701
I/0071 96 P_PLDSBD2 — 701
I/0072 97 P_PLDSBD3 — 701
I/0073 98 P_PLDSBD4 — 701
I/0074 100 P_PLDSBD5 — 701
I/0075 101 P_PLDSBD6 — 701
I/0076 102 P_PLDSBD7 — 701
I/0077 103 M_SBA1 — 003 006 007 250 400 701
I/0078 104 M_SBA8 — 003 006 007 400
I/0079 105 M_SBA9 — 003 006 007 400
I/0080 106 M_SBA16 — 003 006
I/0081 107 M_SBBE0 — 002
I/0082 110 M_SBBE1 — 002
I/0083 111 M_SBCE6 — 002
I/0084 112 M_SBWE3 — 002 017
I/0085 113 M_SBOE3 — 002 017
I/0086 115 M_SBA2 — 003 006 007 017 250 400 701
I/0087 116
I/0088 117 M_SBA0K — 002
I/0089 118 2 — 1 M_PODINT — 001
R727 22(J)
I/0090 119
I/0091 120
I/0092 121
I/0093 124
I/0094 125
I/0095 126
I/0096 128
I/0097 129
I/0098 130
I/0099 131
I/0100 132
I/0101 133
I/0102 134 M_SBCE2 — 002
I/0103 135 P_CTL0 — 702
I/0104 136 P_CTL1 — 702
I/0105 137 M_SBWE4 — 002
I/0106 138 M_SBOE4 — 002
I/0107 139
I/0108 140
I/0109 142

from POD

to Buffer

from Buffer

from SEINE

to SEINE

to POD power comtroller

[RMX4A] RM727 33(J)
8 — 1 E_ENCWE — 250
7 — 2 E_ENCOE — 250
6 — 3 E_ENCCE — 250
5 — 4

[RMX4A] RM701
4 — 5 TS_SE0DATA0 — 150
3 — 6 TS_SE0DATA1 — 150
2 — 7 TS_SE0DATA2 — 150
1 — 8 TS_SE0DATA3 — 150

to SEINE(TS Selector)

[RMX4A] RM702
4 — 5 TS_SE0DATA4 — 150
3 — 6 TS_SE0DATA5 — 150
2 — 7 TS_SE0DATA6 — 150
1 — 8 TS_SE0DATA7 — 150

[RMX4A] RM703
4 — 5 TS_SE0CLK — 150
3 — 6 TS_SE0SYNC — 150
2 — 7 TS_SE0VLD — 150
1 — 8 TS_SE0ERR — 150

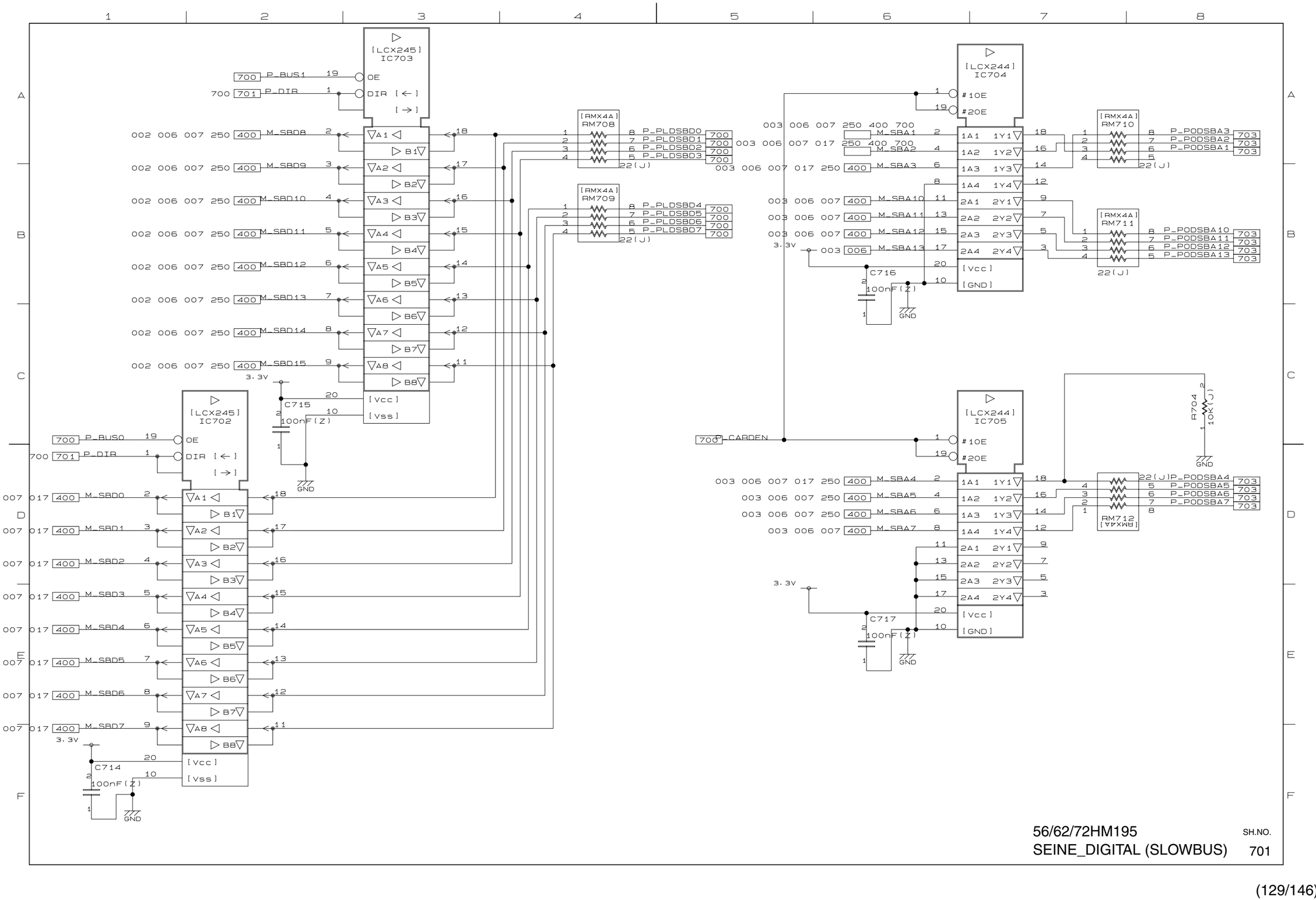
3.3V

C704 C705 C706 C707 C708 C709 C710 C711 C712 C713
100nF(Z) 100nF(Z) 100nF(Z) 100nF(Z) 100nF(Z) 100nF(Z) 100nF(Z) 100nF(Z) 100nF(Z) 100nF(Z)

GND

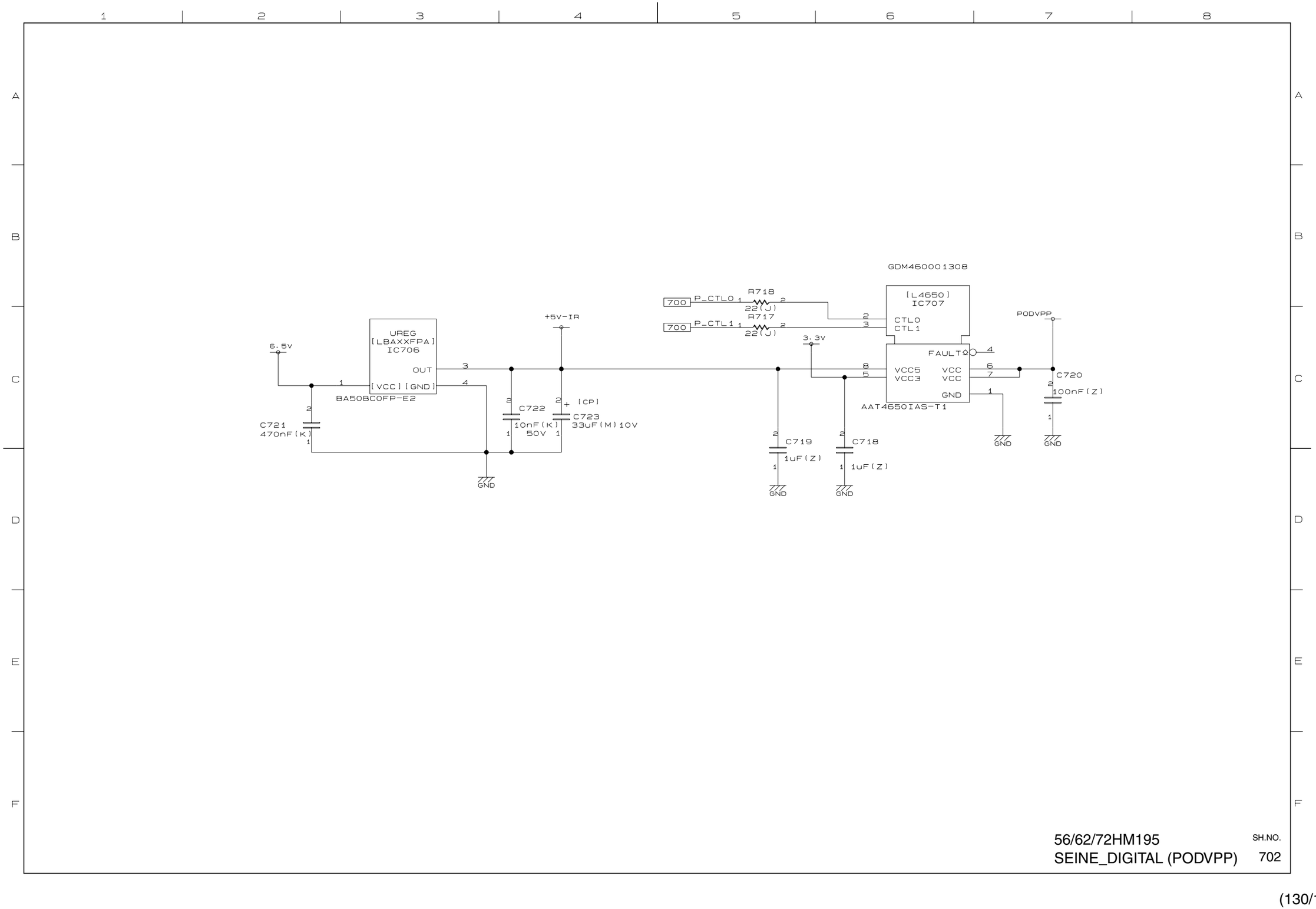
56/62/72HM195
SEINE_DIGITAL (CPLD_XILINX)

SH.NO.
700



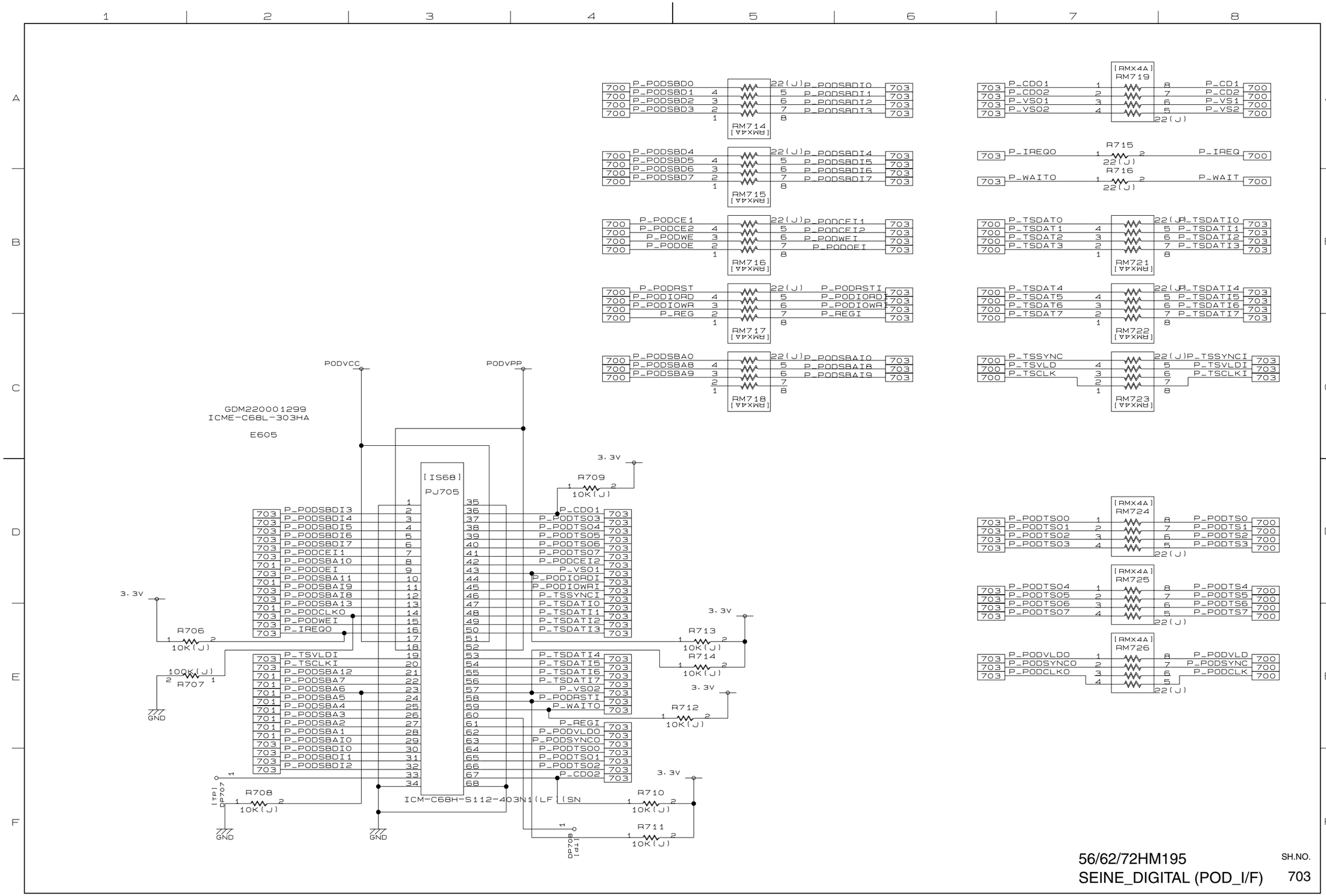
56/62/72HM195
SEINE_DIGITAL (SLOWBUS)

SH.NO. 701



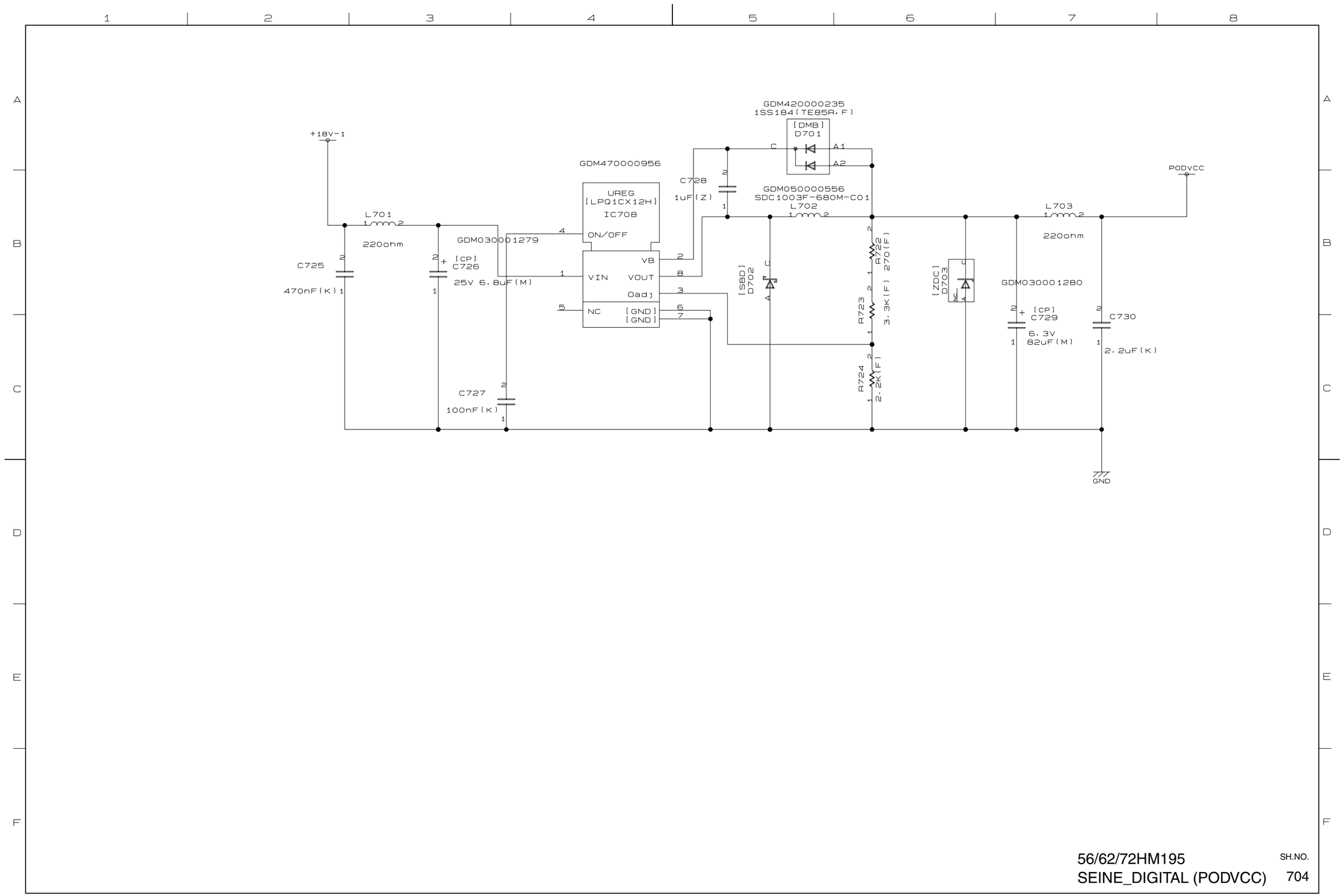
56/62/72HM195
SEINE_DIGITAL (PODVPP)

SH.NO.
702



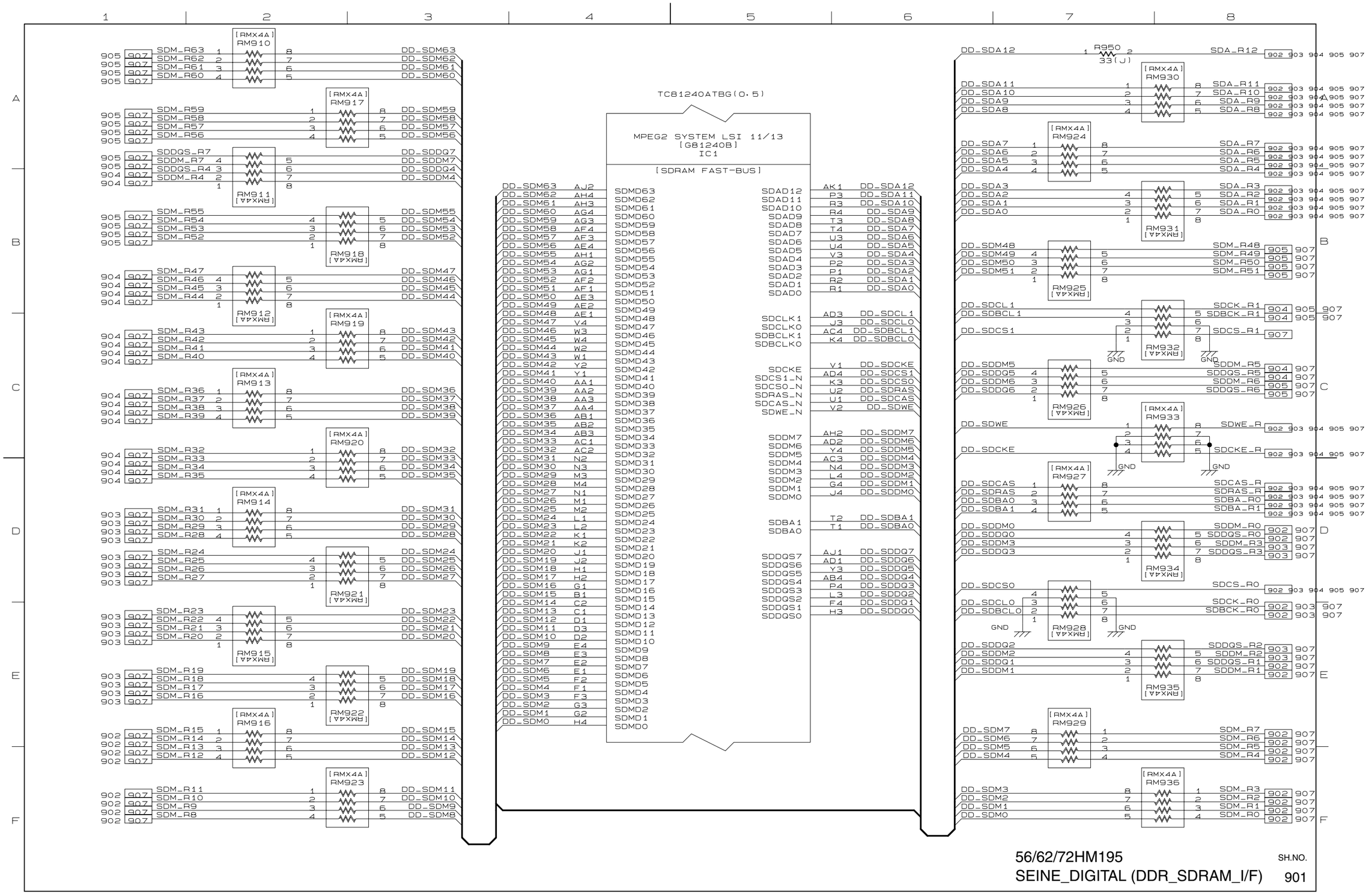
56/62/72HM195
SEINE_DIGITAL (POD_I/F)

SH.NO. 703



56/62/72HM195
SEINE_DIGITAL (PODVCC)

SH.NO.
704


TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 11/13
[G81240B]
IC1
[SDRAM FAST-BUS]
[RMX4A] RM910
[RMX4A] RM911
[RMX4A] RM912
[RMX4A] RM913
[RMX4A] RM914
[RMX4A] RM915
[RMX4A] RM916
[RMX4A] RM917
[RMX4A] RM918
[RMX4A] RM919
[RMX4A] RM920
[RMX4A] RM921
[RMX4A] RM922
[RMX4A] RM923
[RMX4A] RM924
[RMX4A] RM925
[RMX4A] RM926
[RMX4A] RM927
[RMX4A] RM928
[RMX4A] RM929
[RMX4A] RM930
[RMX4A] RM931
[RMX4A] RM932
[RMX4A] RM933
[RMX4A] RM934
[RMX4A] RM935
[RMX4A] RM936
R950 33(J)
GND
56/62/72HM195
SEINE_DIGITAL (DDR_SDRAM_I/F)
SH.NO.
901

EDD2516AKTA-6B-E

TSOP II
[MDSD16M16]

IC901

901 903 904 905 907	SDA_R0	29	A0
901 903 904 905 907	SDA_R1	30	A1
901 903 904 905 907	SDA_R2	31	A2
901 903 904 905 907	SDA_R3	32	A3
901 903 904 905 907	SDA_R4	35	A4
901 903 904 905 907	SDA_R5	36	A5
901 903 904 905 907	SDA_R6	37	A6
901 903 904 905 907	SDA_R7	38	A7
901 903 904 905 907	SDA_R8	39	A8
901 903 904 905 907	SDA_R9	40	A9
901 903 904 905 907	SDA_R10	28	A10/AP
901 903 904 905 907	SDA_R11	41	A11
901 903 904 905 907	SDA_R12	42	A12
901 903 904 905 907	SDBA_R1	27	BS1
901 903 904 905 907	SDBA_R0	26	BS0
901 903 907	SDBCK_R0	46	CLK
901 903 907	SDCK_R0	45	CLK
901 903 904 905 907	SDCKE_R	44	CKE
901 903 904 905 907	SDCS_R0	24	CS
901 903 904 905 907	SDRAS_R	23	RAS
901 903 904 905 907	SDCAS_R	22	CAS
901 903 904 905 907	SDWE_R	21	WE
901 907	SDDM_R0 — R951 33(J)	20	LDM
901 907	SDDM_R1 — R952 33(J)	47	UDM
901 907	SDDQS_R0 — R953 33(J)	16	LDQS
901 907	SDDQS_R1 — R954 33(J)	51	UDQS
		14	NC
		17	NC
		19	NC
		25	NC
		43	NC
		50	NC
		53	NC
		3	[VDDQ] [VSSQ]
		9	[VDDQ] [VSSQ]
		15	[VDDQ] [VSSQ]
		55	[VDDQ] [VSSQ]
		61	[VDDQ] [VSSQ]
		1	[VDD] [VSS]
		18	[VDD] [VSS]
		33	[VDD] [VSS]
903 904 905 906	Vref_Std	49	[VREF]

DQ0	2	SDM_R0 — RM937 [RMX4A] 33(J)
DQ1	4	SDM_R1 — RM937 [RMX4A] 33(J)
DQ2	5	SDM_R2 — RM937 [RMX4A] 33(J)
DQ3	7	SDM_R3 — RM937 [RMX4A] 33(J)
DQ4	8	SDM_R4 — RM938 [RMX4A] 33(J)
DQ5	10	SDM_R5 — RM938 [RMX4A] 33(J)
DQ6	11	SDM_R6 — RM938 [RMX4A] 33(J)
DQ7	13	SDM_R7 — RM938 [RMX4A] 33(J)
DQ8	54	SDM_R8 — RM939 [RMX4A] 33(J)
DQ9	56	SDM_R9 — RM939 [RMX4A] 33(J)
DQ10	57	SDM_R10 — RM939 [RMX4A] 33(J)
DQ11	59	SDM_R11 — RM939 [RMX4A] 33(J)
DQ12	60	SDM_R12 — RM940 [RMX4A] 33(J)
DQ13	62	SDM_R13 — RM940 [RMX4A] 33(J)
DQ14	63	SDM_R14 — RM940 [RMX4A] 33(J)
DQ15	65	SDM_R15 — RM940 [RMX4A] 33(J)

+2.5_DDR

C901 10uF(M) NOT MOUNT

C902 C903 C904 C905 C906 C907 C908 C909 C965 C966
100nF(Z) 10nF(K)

GND

C967 10nF(K)

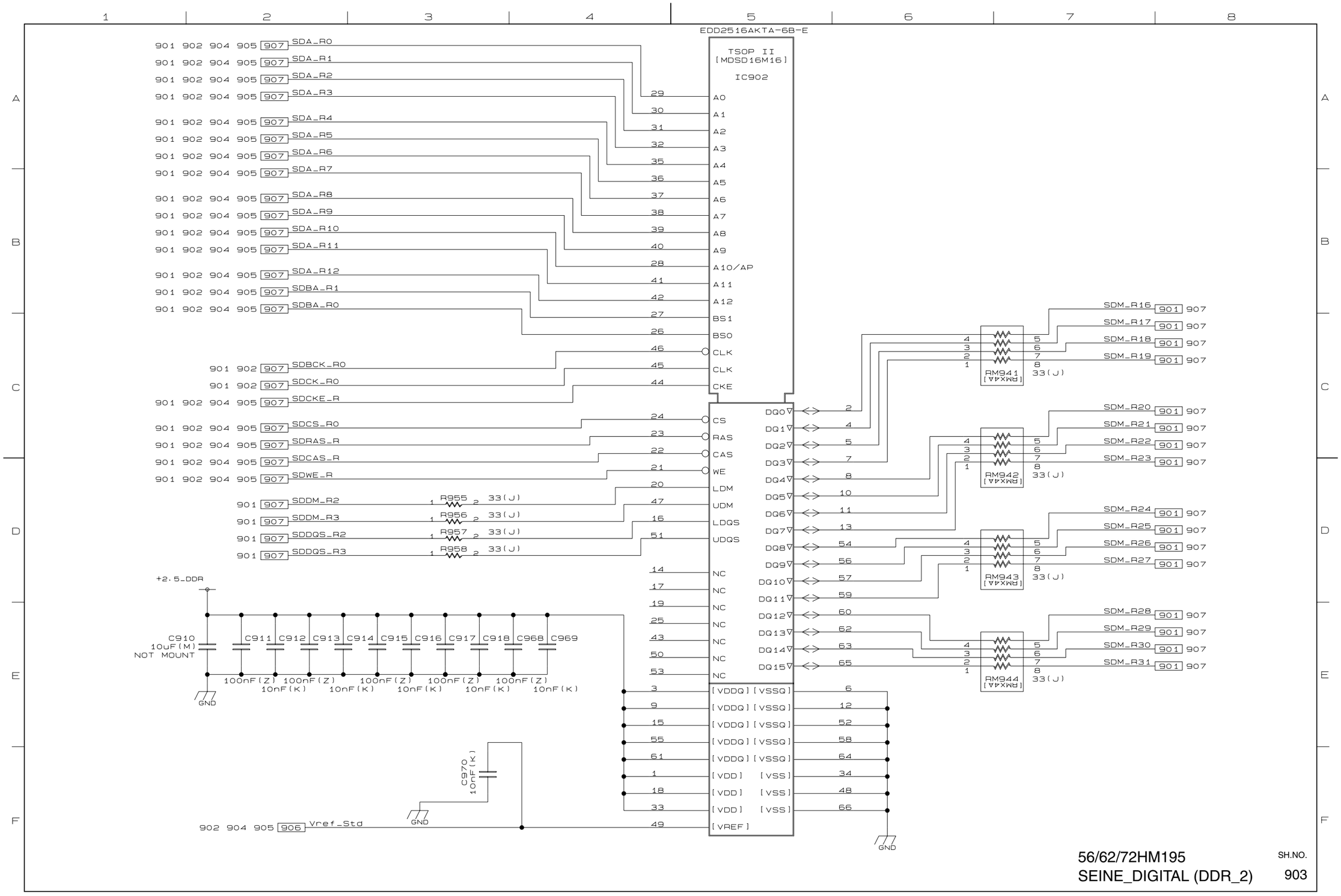
GND

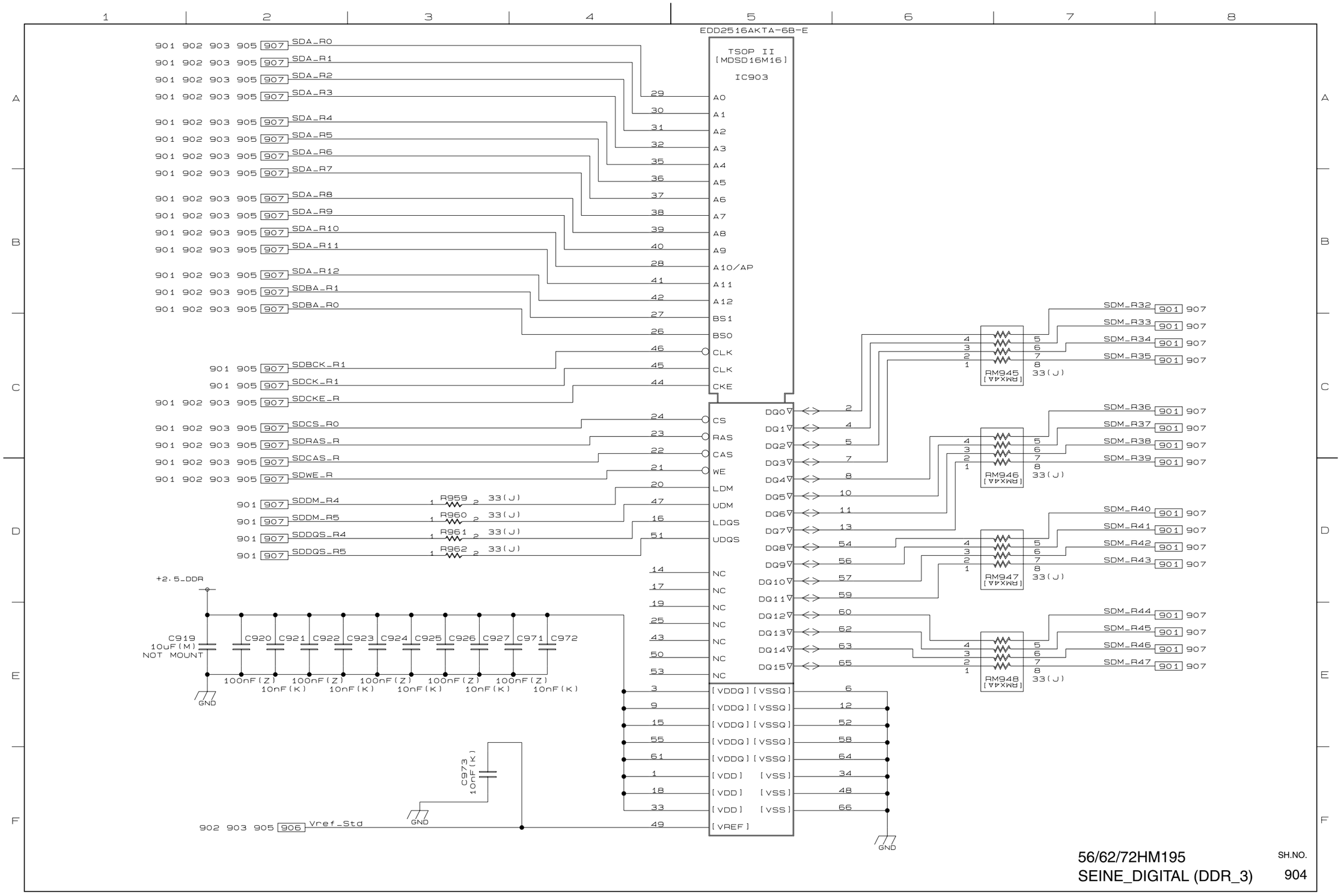
6 12 52 58 64 34 48 66

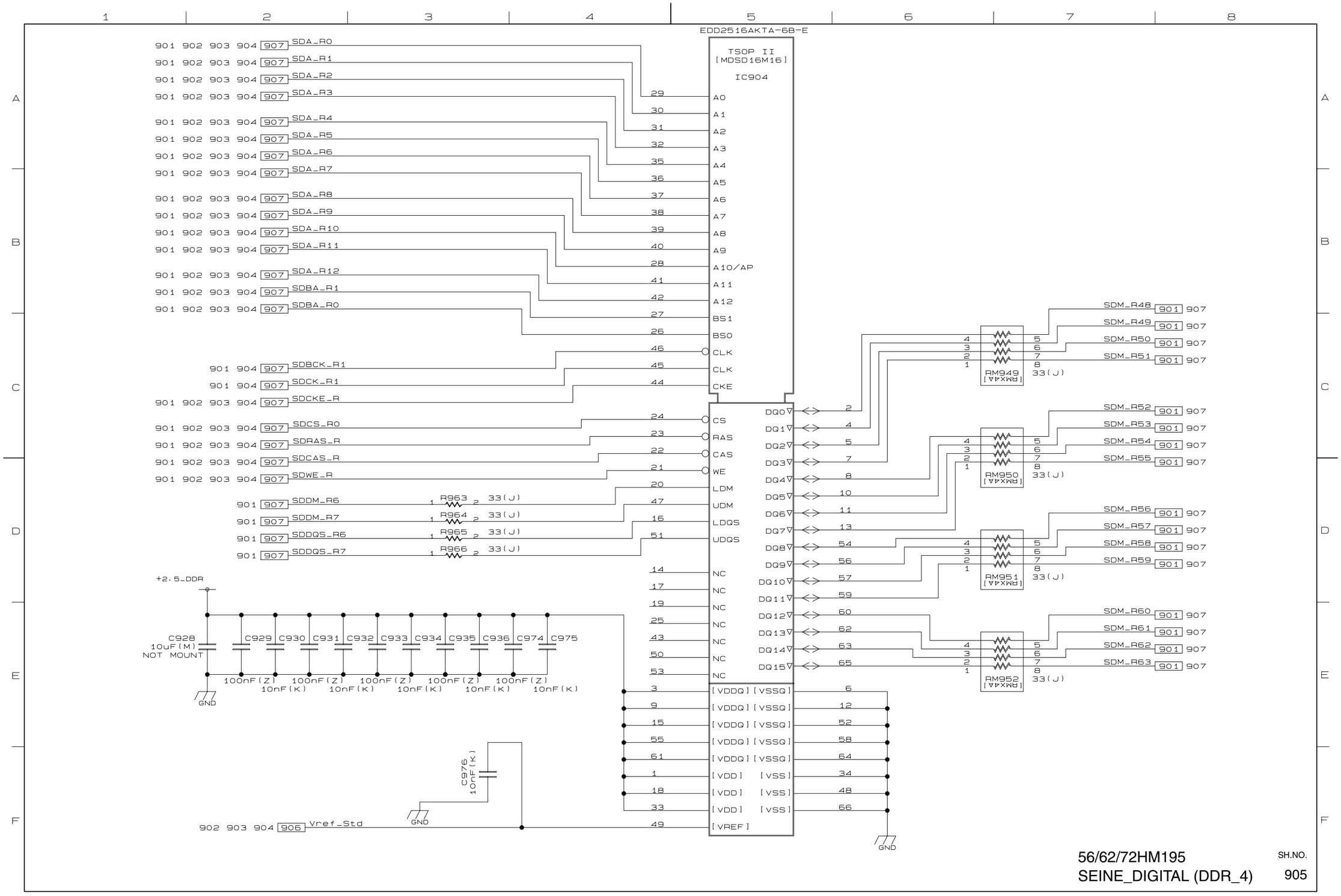
GND

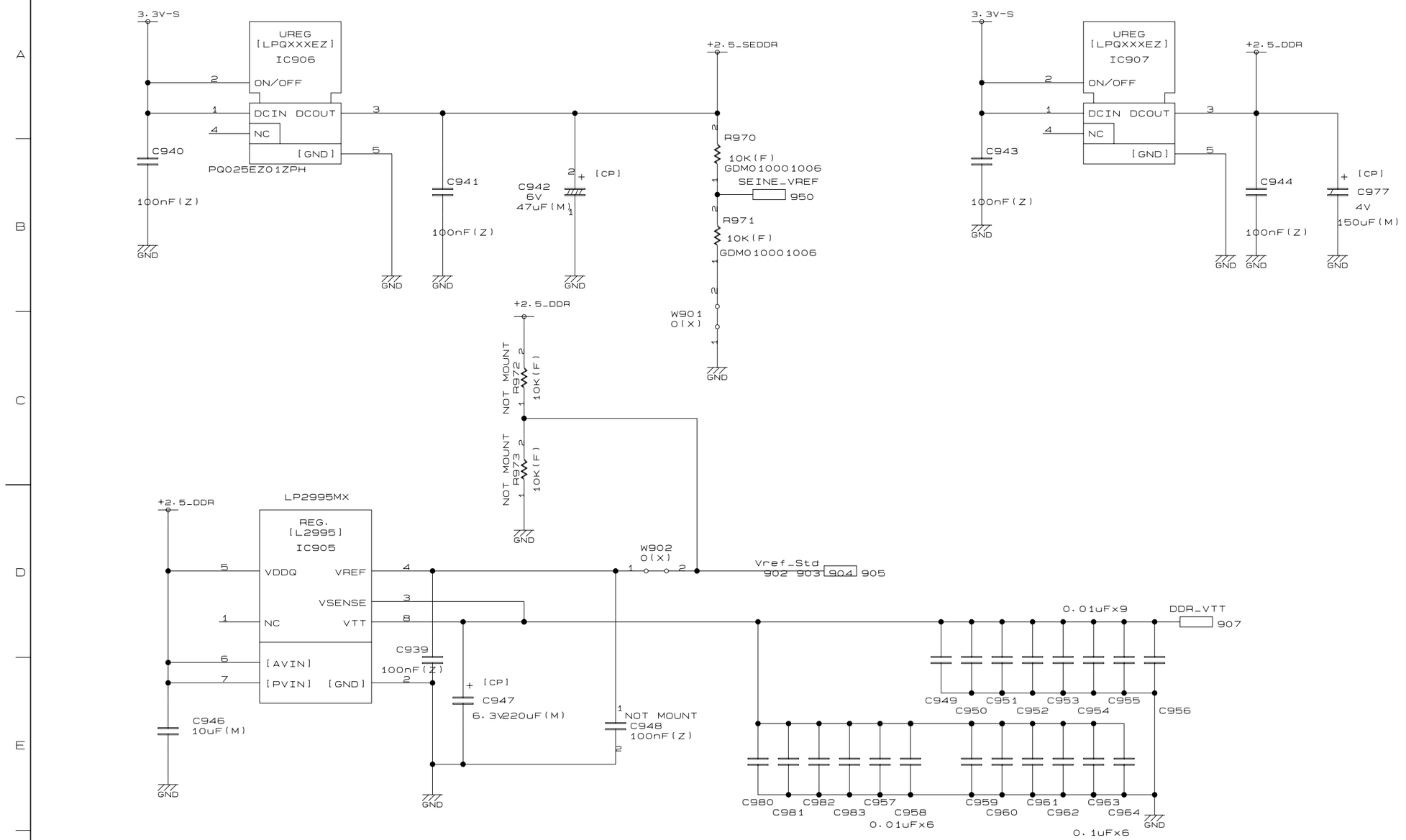
56/62/72HM195
SEINE_DIGITAL (DDR_1)

SH.NO. 902


EDD2516AKTA-6B-E
TSOP II
[MDSD16M16]
IC902
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10/AP
A11
A12
BS1
BS0
CLK
CLK
CKE
CS
RAS
CAS
WE
LDM
UDM
LDQS
UDQS
NC
[VDDQ] [VSSQ]
[VDD] [VSS]
[VREF]
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
SDA_R0
SDA_R1
SDA_R2
SDA_R3
SDA_R4
SDA_R5
SDA_R6
SDA_R7
SDA_R8
SDA_R9
SDA_R10
SDA_R11
SDA_R12
SDBA_R1
SDBA_R0
SDBCK_R0
SDCK_R0
SDCKE_R
SDCS_R0
SDRAS_R
SDCAS_R
SDWE_R
SDDM_R2
SDDM_R3
SDDQS_R2
SDDQS_R3
R955 33(J)
R956 33(J)
R957 33(J)
R958 33(J)
+2.5_DDR
C910 10uF(M) NOT MOUNT
C911 C912 C913 C914 C915 C916 C917 C918 C968 C969
100nF(Z) 10nF(K)
GND
C970 10nF(K)
Vref_Std
SDM_R16
SDM_R17
SDM_R18
SDM_R19
SDM_R20
SDM_R21
SDM_R22
SDM_R23
SDM_R24
SDM_R25
SDM_R26
SDM_R27
SDM_R28
SDM_R29
SDM_R30
SDM_R31
RM941 [RMX4A] 33(J)
RM942 [RMX4A] 33(J)
RM943 [RMX4A] 33(J)
RM944 [RMX4A] 33(J)
56/62/72HM195
SEINE_DIGITAL (DDR_2)
SH.NO.
903

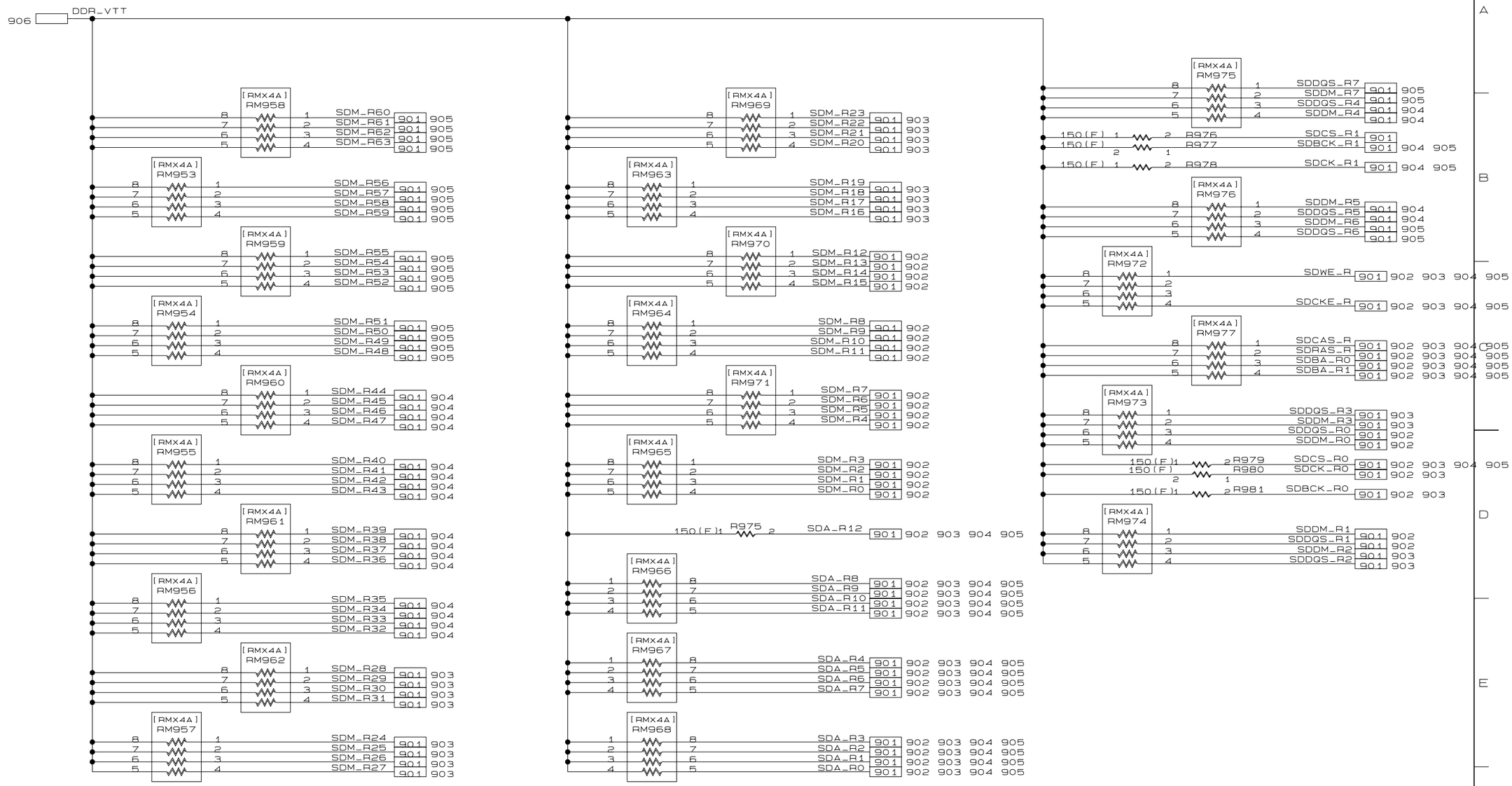

EDD2516AKTA-6B-E
TSOP II
[MDSD16M16]
IC903
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10/AP
A11
A12
BS1
BS0
CLK
CLK
CKE
CS
RAS
CAS
WE
LDM
UDM
LDQS
UDQS
NC
[VDDQ] [VSSQ]
[VDD] [VSS]
[VREF]
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
SDA_R0
SDA_R1
SDA_R2
SDA_R3
SDA_R4
SDA_R5
SDA_R6
SDA_R7
SDA_R8
SDA_R9
SDA_R10
SDA_R11
SDA_R12
SDBA_R1
SDBA_R0
SDBCK_R1
SDCK_R1
SDCKE_R
SDCS_R0
SDRAS_R
SDCAS_R
SDWE_R
SDDM_R4
SDDM_R5
SDDQS_R4
SDDQS_R5
R959 33(J)
R960 33(J)
R961 33(J)
R962 33(J)
+2.5_DDR
C919 10uF(M) NOT MOUNT
C920 C921 C922 C923 C924 C925 C926 C927 C971 C972
100nF(Z) 10nF(K)
GND
C973 10nF(K)
Vref_Std
SDM_R32
SDM_R33
SDM_R34
SDM_R35
SDM_R36
SDM_R37
SDM_R38
SDM_R39
SDM_R40
SDM_R41
SDM_R42
SDM_R43
SDM_R44
SDM_R45
SDM_R46
SDM_R47
RM945 [RMX4A] 33(J)
RM946 [RMX4A] 33(J)
RM947 [RMX4A] 33(J)
RM948 [RMX4A] 33(J)
56/62/72HM195
SEINE_DIGITAL (DDR_3)
SH.NO.
904


EDD2516AKTA-6B-E
TSOP II
[MDSD16M16]
IC904
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10/AP
A11
A12
BS1
BS0
CLK
CLK
CKE
CS
RAS
CAS
WE
LDM
UDM
LDQS
UDQS
NC
[VDDQ] [VSSQ]
[VDD] [VSS]
[VREF]
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
SDA_R0
SDA_R1
SDA_R2
SDA_R3
SDA_R4
SDA_R5
SDA_R6
SDA_R7
SDA_R8
SDA_R9
SDA_R10
SDA_R11
SDA_R12
SDBA_R1
SDBA_R0
SDBCK_R1
SDCK_R1
SDCKE_R
SDCS_R0
SDRAS_R
SDCAS_R
SDWE_R
SDDM_R6
SDDM_R7
SDDQS_R6
SDDQS_R7
R963 33(J)
R964 33(J)
R965 33(J)
R966 33(J)
+2.5_DDR
C928 10uF(M) NOT MOUNT
C929 C930 C931 C932 C933 C934 C935 C936 C974 C975
100nF(Z) 10nF(K)
GND
C976 10nF(K)
Vref_Std
SDM_R48
SDM_R49
SDM_R50
SDM_R51
SDM_R52
SDM_R53
SDM_R54
SDM_R55
SDM_R56
SDM_R57
SDM_R58
SDM_R59
SDM_R60
SDM_R61
SDM_R62
SDM_R63
RM949 [RMX4A] 33(J)
RM950 [RMX4A] 33(J)
RM951 [RMX4A] 33(J)
RM952 [RMX4A] 33(J)
56/62/72HM195
SEINE_DIGITAL (DDR_4)
SH.NO.
905



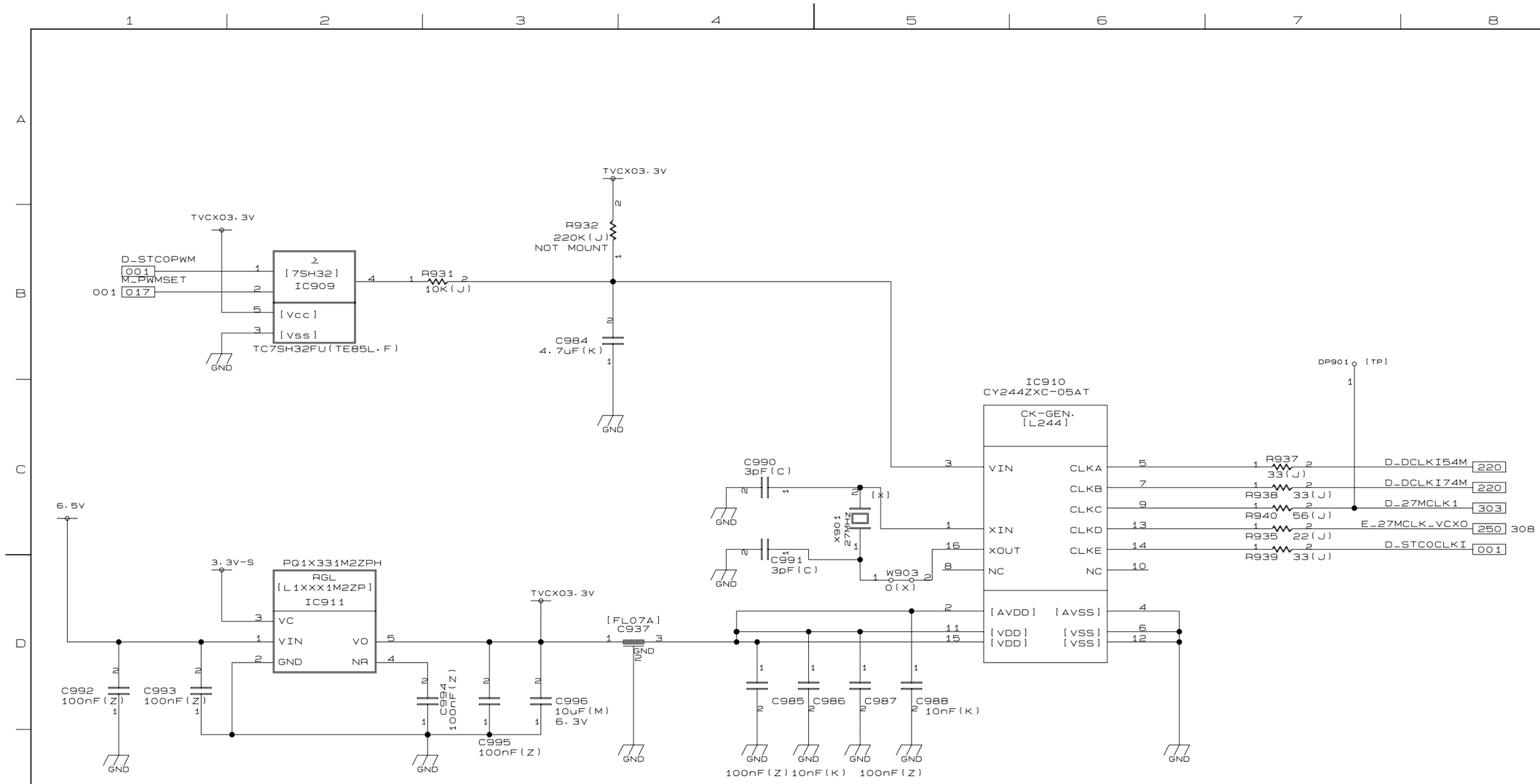
56/62/72HM195
SEINE_DIGITAL (DDR_POWER)

SH.NO.
906



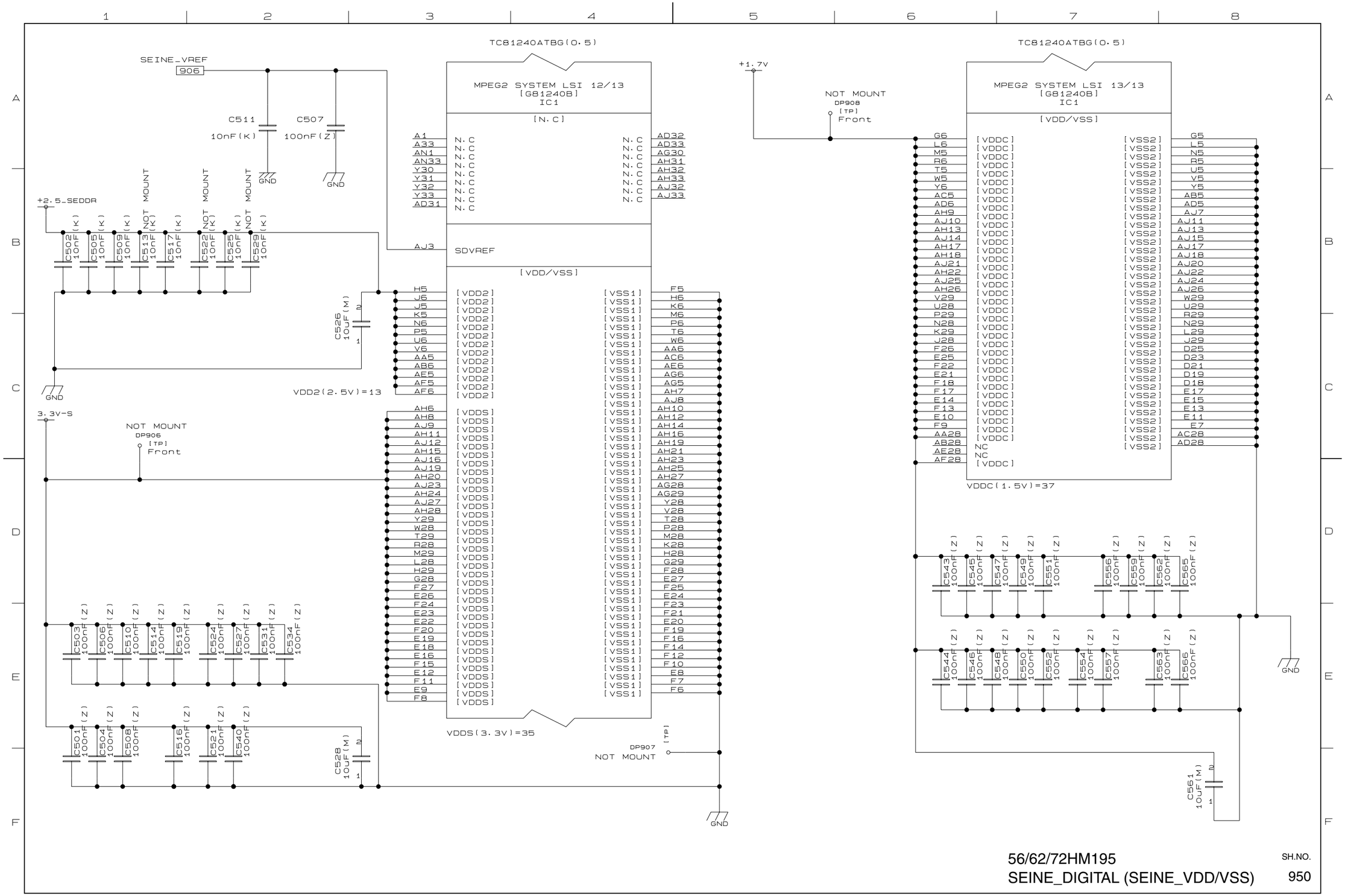
56/62/72HM195
SEINE_DIGITAL (TERMINATOR)

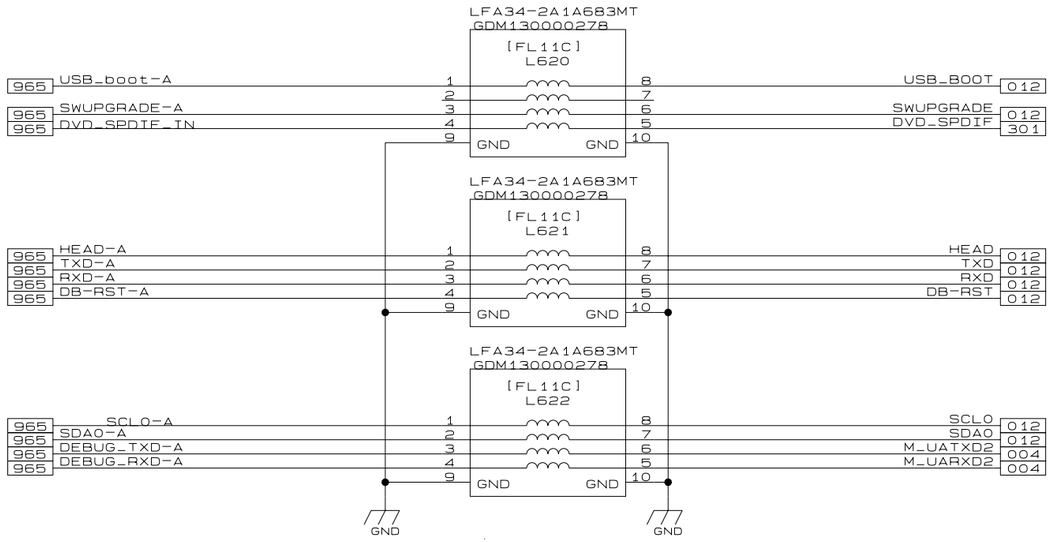
SH.NO.
907



56/62/72HM195
SEINE_DIGITAL (VCXO)

SH.NO.
941

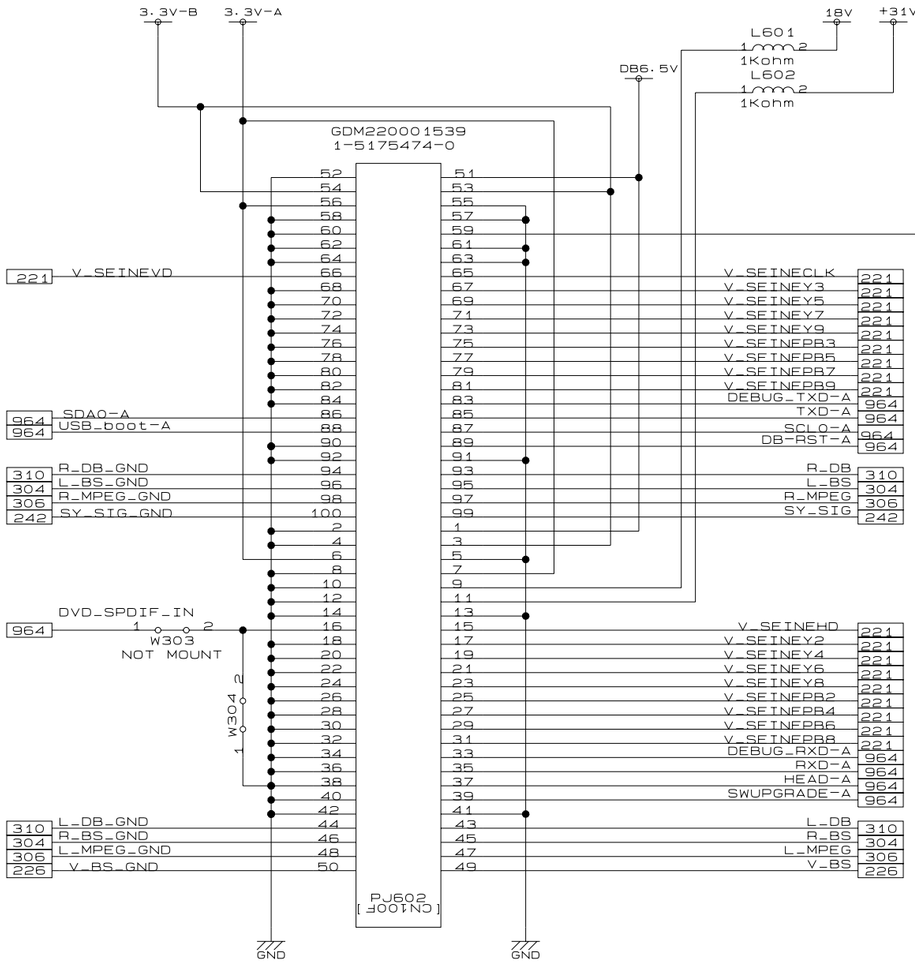

TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 12/13
[G81240B]
IC1
[N.C]
SDVREF
[VDD/VSS]
SEINE_VREF
906
C511
10nF(K)
C507
100nF(Z)
GND
+2.5_SEDDR
C502 10nF(K)
C505 10nF(K)
C509 10nF(K)
C513 NOT MOUNT 10nF(K)
C517 10nF(K)
C522 NOT MOUNT 10nF(K)
C525 NOT MOUNT 10nF(K)
C529 10nF(K)
C526 10uF(M)
VDD2(2.5V)=13
3.3V-S
NOT MOUNT
DP906
[TP]
Front
C503 100nF(Z)
C506 100nF(Z)
C510 100nF(Z)
C514 100nF(Z)
C519 100nF(Z)
C524 100nF(Z)
C527 100nF(Z)
C531 100nF(Z)
C534 100nF(Z)
C501 100nF(Z)
C504 100nF(Z)
C508 100nF(Z)
C516 100nF(Z)
C521 100nF(Z)
C540 100nF(Z)
C528 10uF(M)
VDDS(3.3V)=35
DP907
NOT MOUNT
[TP]
+1.7V
NOT MOUNT
DP908
[TP]
Front
TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 13/13
[G81240B]
IC1
[VDD/VSS]
VDDC(1.5V)=37
C543 100nF(Z)
C545 100nF(Z)
C547 100nF(Z)
C549 100nF(Z)
C551 100nF(Z)
C556 100nF(Z)
C559 100nF(Z)
C562 100nF(Z)
C565 100nF(Z)
C544 100nF(Z)
C546 100nF(Z)
C548 100nF(Z)
C550 100nF(Z)
C552 100nF(Z)
C554 100nF(Z)
C557 100nF(Z)
C563 100nF(Z)
C565 100nF(Z)
C561 10uF(M)
GND
56/62/72HM195
SEINE_DIGITAL (SEINE_VDD/VSS)
SH.NO.
950

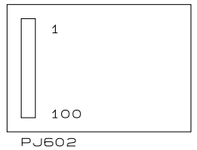


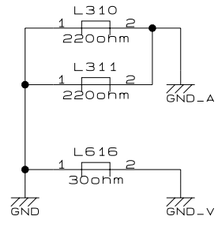
56/62/72HM195
SEINE_DIGITAL (Signal_filter)

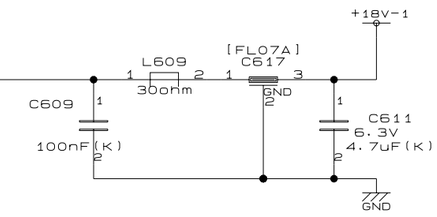
SH.NO.
964

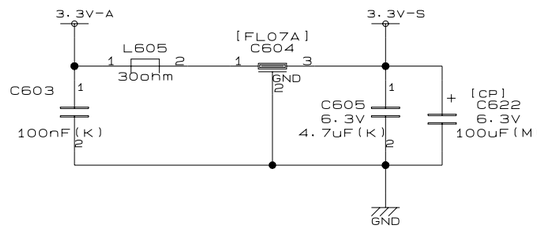
1. DB6.5V
2. GND
3. 3.3V-B
4. GND
5. GND
6. 3.3V-A
7. 3.3V-A
8. GND
9. 18VFOR ANALOG AUDIO
10. GND
11. 31V
12. GND
13. GND
14. GND
15. HD
16. GND
17. Y_G0
18. GND
19. Y_G2
20. GND
21. Y_G4
22. GND
23. Y_G6
24. GND
25. PBPR_C0
26. GND
27. PBPR_C2
28. GND
29. PBPR_C4
30. GND
31. PBPR_C6
32. GND
33. DEBUG_RXD
34. GND
35. RXD
36. GND
37. HEAD
38. GND
39. SWUPGRADE
40. GND
41. GND
42. GND
43. L_DB
44. L_DB_GND
45. R_BS
46. R_BS_GND
47. L_MPEG
48. L_MPEG_GND
49. V_BS
50. V_BS_GND
51. DB6.5V
52. GND
53. 3.3V-B
54. 3.3V-B
55. GND
56. 3.3V-A
57. GND
58. GND
59. 11V2(FOR POD)
60. GND
61. GND
62. GND
63. GND
64. GND
65. DIGITAL CLOCK
66. VD
67. Y_G1
68. GND
69. Y_G3
70. GND
71. Y_G5
72. GND
73. Y_G7
74. GND
75. PBPR_C1
76. GND
77. PBPR_C3
78. GND
79. PBPR_C5
80. GND
81. PBPR_C7
82. GND
83. DEBUG_TXD
84. IIC_CLK
85. TXD
86. GND
87. IIC_DATA
88. USB BOOT
89. DB_RST
90. GND
91. GND
92. GND
93. R_DB
94. R_DB_GND
95. L_BS
96. L_BS_GND
97. R_MPEG
98. R_MPEG_GND
99. V_SIG
100. SY_SIG_GND

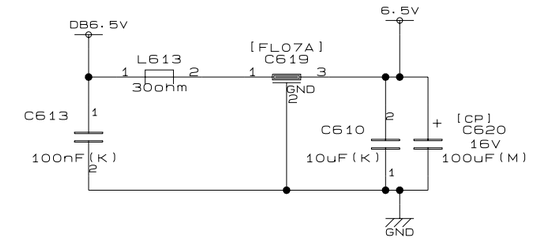


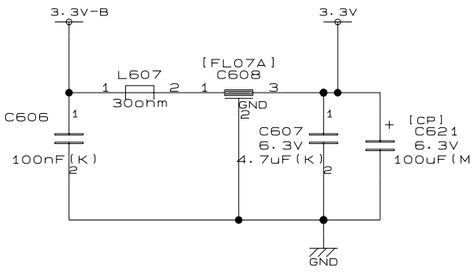






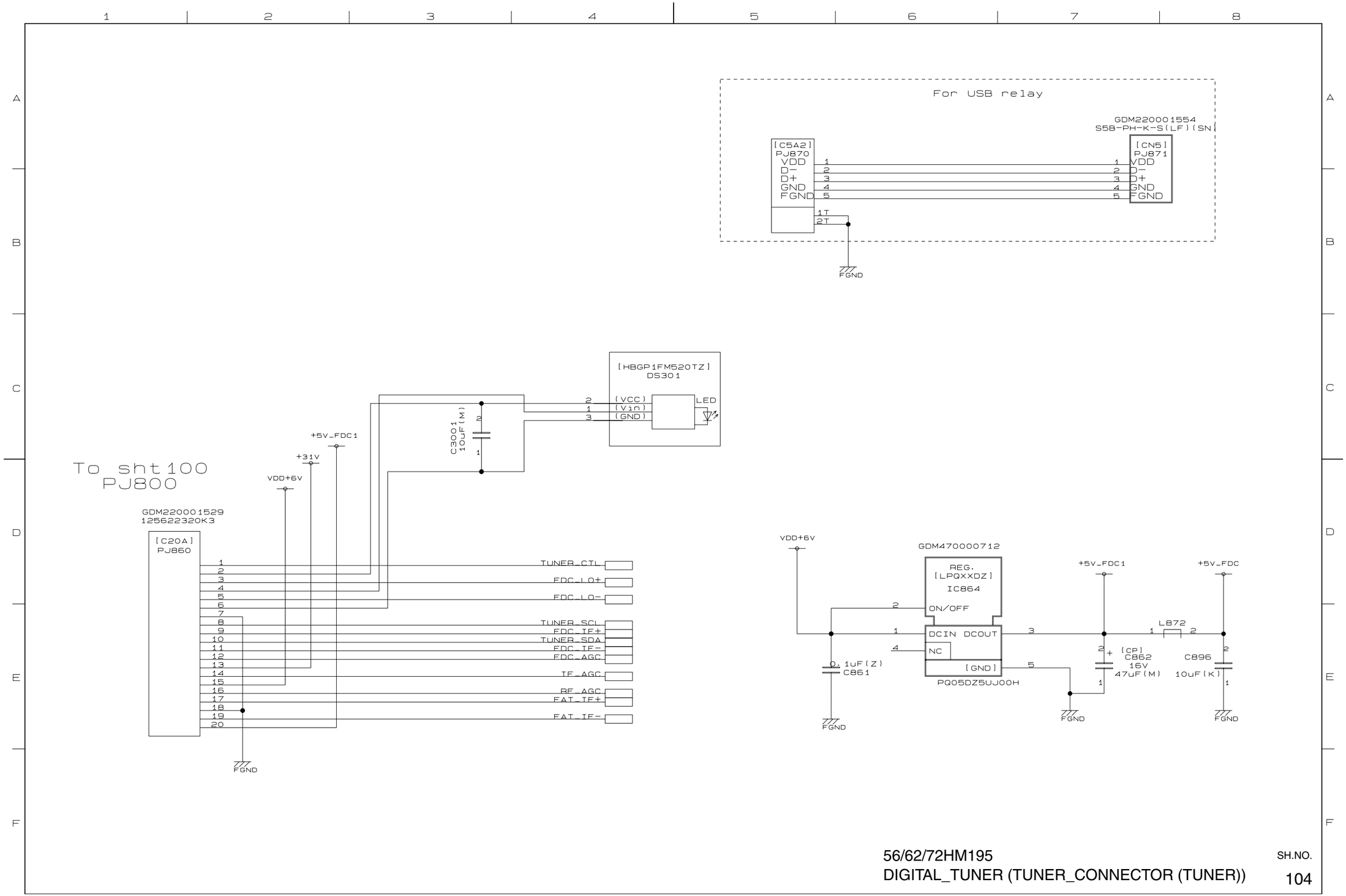






56/62/72HM195
SEINE_DIGITAL (CONNECTOR)

SH.NO. 965



56/62/72HM195
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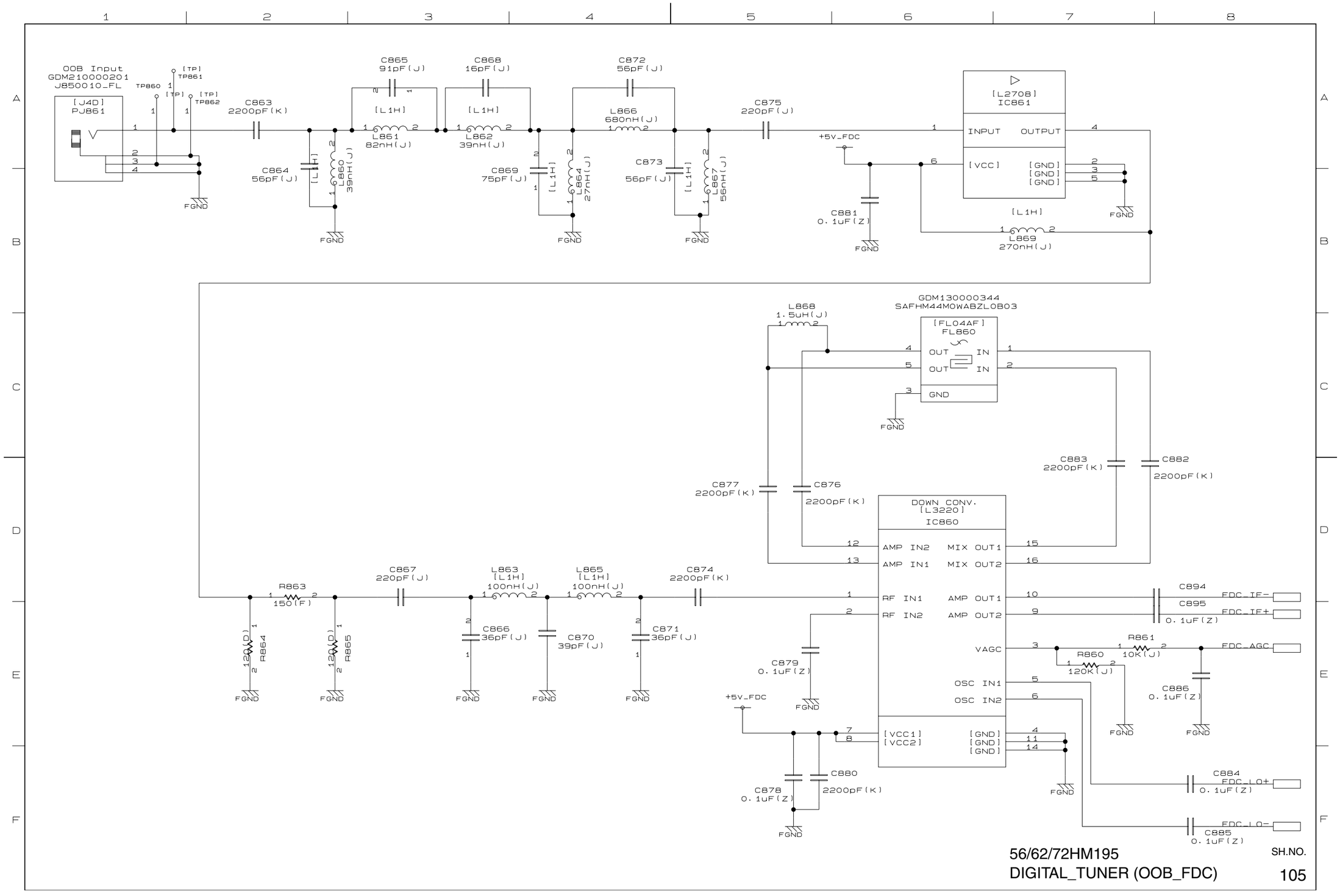
SH.NO.
104



56/62/72HM195
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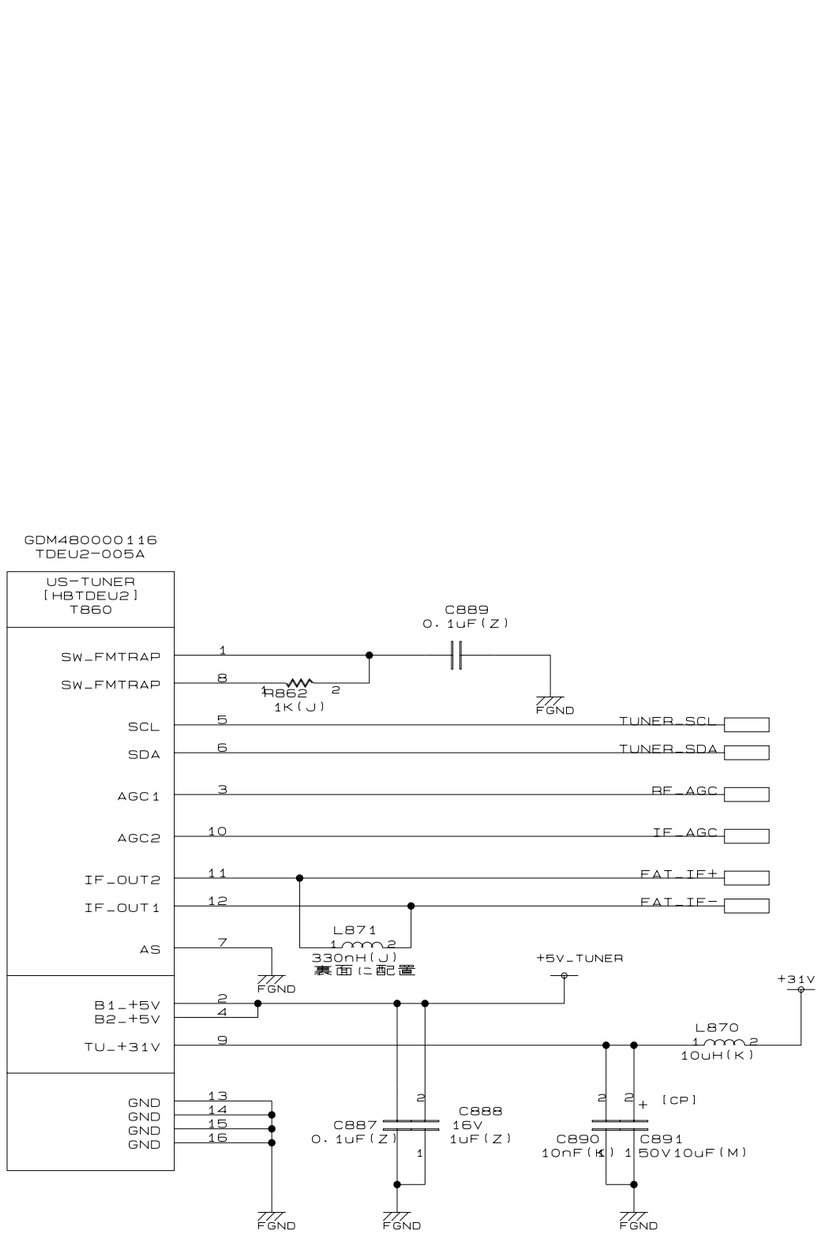
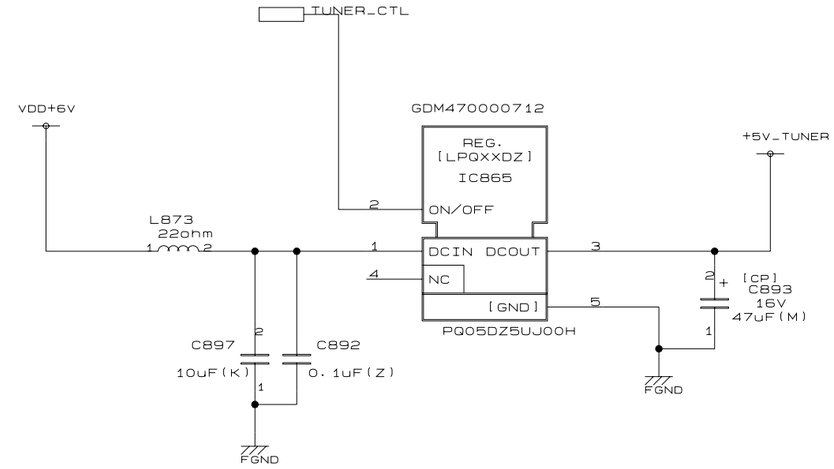
SH.NO.
105





56/62/72HM195
DIGITAL_TUNER (FAT_TUNER)

SH.NO.
106